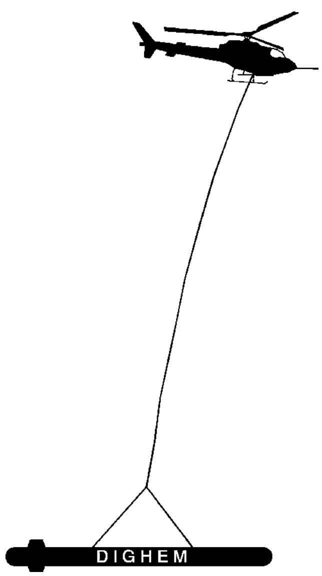
Report #04097

DIGHEM$^{V\text{-}DSP}$ SURVEY FOR NDT VENTURES LTD. ZYMO PROPERTY SMITHERS AREA, B.C..

NTS 93L/13; 103I/16



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SUMMARY

This report describes the logistics, data acquisition, processing and presentation of results of a DIGHEM^{V} airborne geophysical survey carried out for NDT Ventures Ltd., over a property located west of Smithers, B.C. Total coverage of the survey block amounted to 823 km. The survey was flown from November 24 to December 10, 2004.

The purpose of the survey was to detect auriferous mineralization in areas of Si-flooded alteration zones, to detect any other zones of conductive sulphide mineralization, and to provide information that could be used to map the geology and structure of the survey area. Given the proximity of the property to other porphyry deposits in the general vicinity, it is possible that resistive, plug-like targets could also prove to be potential targets. The survey was carried out using a DIGHEM$^{V\text{-}DSP}$ multi-coil, multi-frequency electromagnetic system, supplemented by a high sensitivity cesium magnetometer. The information from these sensors was processed to produce maps that display the magnetic and conductive properties of the survey area. A GPS electronic navigation system ensured accurate positioning of the geophysical data with respect to the base maps.

The survey data were processed and compiled in the Fugro Airborne Surveys Toronto office. Map products and digital data were provided in accordance with the scales and formats specified by NDT Ventures Ltd., and its authorized consultant.

The survey property contains numerous anomalous features, several of which are considered to be of moderate to high priority as exploration targets. Both resistivity lows

and resistivity highs may warrant further investigation using appropriate surface exploration techniques. Areas of interest may be assigned priorities on the basis of supporting geophysical, geochemical and/or geological information. After initial investigations have been carried out, it may be necessary to re-evaluate the remaining anomalies based on information acquired from the follow-up program.

CONTENTS

APPENDICES

1. INTRODUCTION

A DIGHEM^{V-DSP} electromagnetic/resistivity/magnetic survey was flown for NDT Ventures Ltd., from November 24 to December 10, 2004, over the Zymo Property, about 48 km west of Smithers, B.C. The survey area can be located on NTS map sheets 93L/13 and 103I/16.

Survey coverage consisted of approximately 823 line-km, including eight tie lines. Flight lines were flown in an azimuthal direction of 040°/220° with a line separation of 100 metres. Orthogonal tie lines were flown 130°, with a line spacing of 1 km.

The survey employed the DIGHEM^{V-DSP} electromagnetic system. Ancillary equipment consisted of a magnetometer, radar and barometric altimeters, video camera, a digital recorder, and an electronic navigation system. The instrumentation was installed in an AS350B3 turbine helicopter (Registration C-GECL) which was provided by Questral Helicopters Ltd. The helicopter flew at an average airspeed of 65 km/h with an EM sensor height of approximately 30 metres.

In some portions of the survey area, the moderately steep topography forced the pilot to exceed normal terrain clearance for reasons of safety. It is possible that some weak conductors may have escaped detection in any areas where the bird height exceeded 120 m. In difficult areas where near-vertical climbs were necessary, the forward speed of the helicopter was reduced to a level that permitted excessive bird swinging. This problem, combined with the severe stresses to which the bird was subjected, gave rise to aerodynamic noise levels that are slightly higher than normal on some lines. Where warranted, reflights were carried out to minimize these adverse effects.

2. SURVEY AREA

The base of operations for the survey was established at the airport in Smithers, B.C.

Table 2-1 lists the corner coordinates of the survey area in NAD83, UTM Zone 9, central meridian 129°W. Table 2-2 is a list of claims that received partial or complete airborne coverage.

Table 2-1

Nad83 Utm Zone 9

Block	Corners	X-UTM (E)	Y-UTM (N)
04097-1	1	559667	6076104
	2	562457	6079435
	3	567488	6079507
	4	570028	6077573
	5	570064	6074814
	6	571745	6073596
	7	572103	6074133
	8	573821	6072995
	9	571809	6070598
	10	571006	6071124
	11	569825	6071077
	12	568812	6071518
	13	565104	6071423
	14	565080	6073429
	15	562564	6073417

Table 2-2 – List of Claims

Zymo 7	345732
Zymo 8	345733
Zymo 9	354273
Zymo 10	354274
Zymo 11	367693
Zymo 12	367694
Zymo 13	367695
Zymo 14	367696
Zymo 15	367697
Zymo 16	367698
Zymo 17	367699
Regis 1	394870
Regis 2	395177

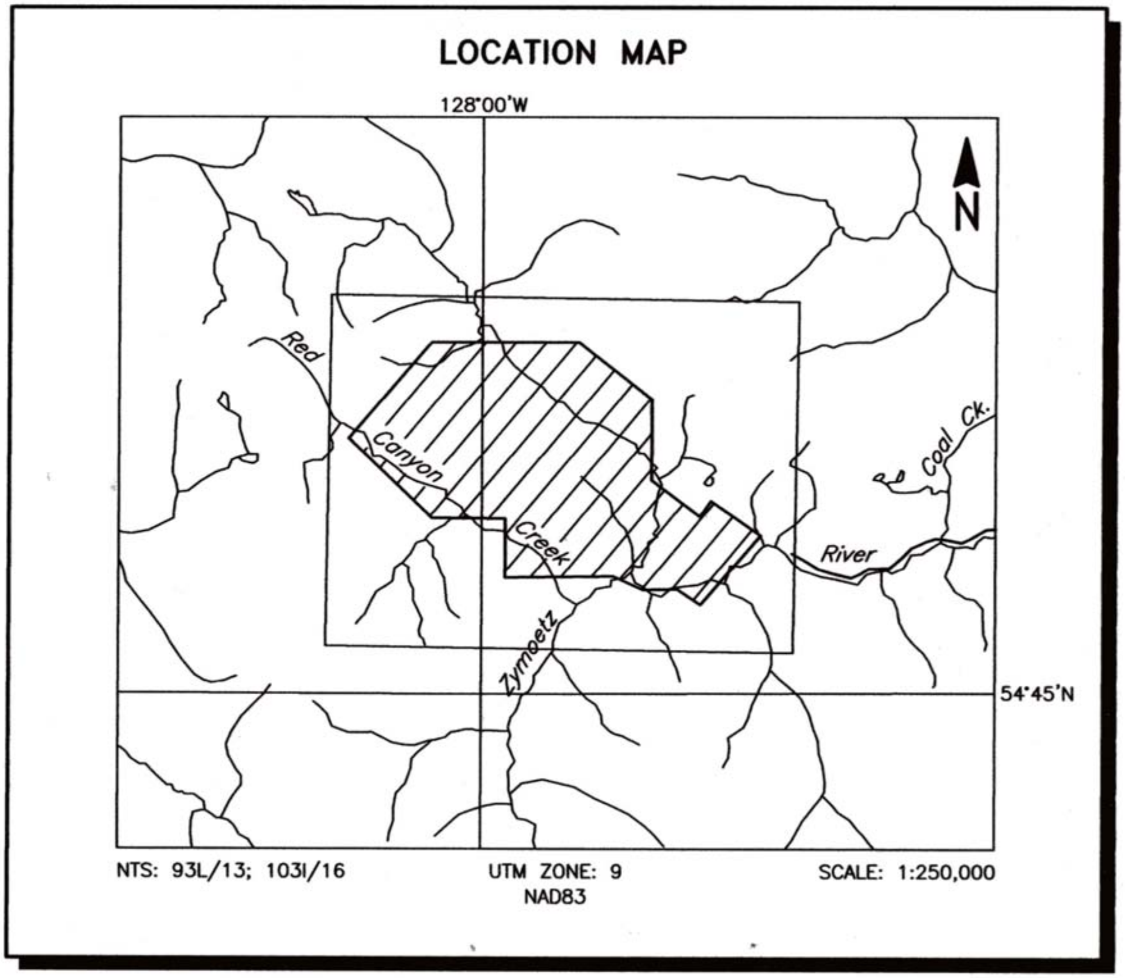

Figure 1
Location Map
Zymo Project
Smithers, B.C.
Job # 04097

The survey specifications were as follows:

Parameter	Specifications
Traverse line direction	40°/220°
Traverse line spacing	100 m
Tie line direction	130°; 310°
Tie line spacing	1 km
Sample interval	10 Hz, 1.8 m @ 65 km/hr
Aircraft mean terrain clearance	58 m
EM sensor mean terrain clearance	30 m
Mag sensor mean terrain clearance	30 m
Average speed	65 km/h
Navigation (guidance)	±5 m, Real-time GPS
Post-survey flight path	±2 m, Differential GPS
Traverse lines	743 km
Tie lines	80 km
Total	823 km

3. SURVEY EQUIPMENT

This section provides a brief description of the geophysical instruments used to acquire the survey data and the calibration procedures employed. The geophysical equipment was installed in an AS350B3 helicopter. This aircraft provides a safe and efficient platform for surveys of this type.

Electromagnetic System

Model: DIGHEM$^{V\text{-}DSP}$ (BK52)

Type: Towed bird, symmetric dipole configuration operated at a nominal survey altitude of 30 metres. Coil separation is 8 metres for 900 Hz, 1000 Hz, 5500 Hz and 7200 Hz, and 6.3 metres for the 56,000 Hz coil-pair.

Coil orientations, frequencies and dipole moments

Atm^2	orientation		nominal	actual
211	coaxial	/	1000 Hz	1112 Hz
211	coplanar	/	900 Hz	870 Hz
68	coaxial	/	5500 Hz	5650 Hz
56	coplanar	/	7200 Hz	7222 Hz
15	coplanar	/	56,000 Hz	55,390 Hz

Channels recorded:
5 in-phase channels
5 quadrature channels
2 monitor channels

Sensitivity:
0.06 ppm at 1000 Hz Cx
0.12 ppm at 900 Hz Cp
0.12 ppm at 5,500 Hz Cx
0.24 ppm at 7,200 Hz Cp
0.60 ppm at 56,000 Hz Cp

Sample rate: 10 per second, equivalent to 1 sample every 1.8 m, at a survey speed of 65 km/h.

The electromagnetic system utilizes a multi-coil coaxial/coplanar technique to energize conductors in different directions. The coaxial coils are vertical with their axes in the flight direction. The coplanar coils are horizontal. The secondary fields are sensed simultaneously by means of receiver coils that are maximum coupled to their respective transmitter coils. The system yields an in-phase and a quadrature channel from each transmitter-receiver coil-pair.

EM System Calibration

The initial calibration procedure at the factory involves three stages; primary field bucking, phase calibration and gain calibration. In the first stage, the primary field at each receiver coil is cancelled, or “bucked out”, by precise positioning of five bucking coils.

The initial phase calibration adjusts the phase angle of the receiver to match that of the transmitter. A ferrite bar, which produces a purely in-phase anomaly, is positioned near each receiver coil. The bar is rotated from minimum to maximum field coupling and the responses for the in-phase and quadrature components for each coil pair/frequency are measured. The phase of the response is adjusted at the console to return an in-phase only response for each coil-pair.

The initial gain calibration uses external coils designed to produce an equal response on in-phase and quadrature components for each frequency/coil-pair. The coil parameters and distances are designed to produce pre-determined responses at the receiver, when the calibration coil is activated.

The phase and gain calibrations each measure a relative change in the secondary field, rather than an absolute value. This removes any dependency of the calibration procedure on the secondary field due to the ground, except under circumstances of extreme ground conductivity.

Subsequent calibrations of the gain, phase and the system zero level are performed in the air. These internal calibrations are carried out before, after, and at regular intervals during each flight. The system is flown to an altitude high enough to be out of range of any secondary field from the earth (the altitude is dependent on ground resistivity) at which point the zero, or base level of the system is established. Calibration coils in the bird are activated for each frequency by closing a switch to form a closed circuit through the coil. The transmitter induces a current in this loop, which creates a secondary field in the receiver of precisely known phase and amplitude. Linear system drift is automatically removed by re-establishing zero levels between the internal calibrations. Any phase and gain changes in the system are recorded by the digital receiver to allow post-flight corrections.

Using real-time Fast Fourier Transforms and the calibration procedures outlined above, the data are processed in real-time from the measured total field to inphase and quadrature components, at a rate of 10 samples per second.

Magnetometer

Model:	Geometrics G-822 sensor with AM102 counter
Type:	Optically pumped cesium vapour
Sensitivity:	0.01 nT
Sample rate:	10 per second

The airborne magnetometer consists of a high sensitivity cesium sensor housed in the HEM bird which is flown 28 m below the helicopter.

Magnetic Base Station

Primary

Model:	Fugro CF1 base station with timing provided by integrated GPS	
Sensor type:	Scintrex CS-2	
Counter specifications:	Accuracy:	±0.1 nT
	Resolution:	0.01 nT
	Sample rate	1 Hz
GPS specifications:	Model:	Marconi Allstar
	Type:	Code and carrier tracking of L1 band, 12-channel, C/A code at 1575.42 MHz
	Sensitivity:	-90 dBm, 1.0 second update
	Accuracy:	Manufacturer’s stated accuracy for differential corrected GPS is 2 metres

Environmental Monitor specifications:	Temperature:		
	•	Accuracy:	±1.5ºC max
	•	Resolution:	0.0305ºC
	•	Sample rate:	1 Hz
	•	Range:	-40ºC to +75ºC
	Barometric pressure:		
	•	Model:	Motorola MPXA4115A
	•	Accuracy:	±3.0º kPa max (-20ºC to 105ºC temp. ranges)
	•	Resolution:	0.013 kPa
	•	Sample rate:	1 Hz
	•	Range:	55 kPa to 108 kPa

A digital recorder is operated in conjunction with the base station magnetometer to record the diurnal variations of the earth's magnetic field. The clock of the base station is synchronized with that of the airborne system, using GPS time, to permit subsequent removal of diurnal drift. The Fugro CF1 was the primary magnetic base station. It was located at WGS84 Latitude 54'49'08.26147"N, Longitude 127°11'15.71022"W at an ellipsoidal elevation of 504.98 m.

Navigation (Global Positioning System)

Airborne Receiver for Real-time Navigation & Guidance

Model:	Ashtech Glonass GG-24 unit with Picodas PNAV2100 interface
Type:	Code and carrier tracking of L1-C/A code at 1575.42 MHz and S code at 0.5625 MHz. Dual frequency, 24-channel, real-time differential.
Sensitivity:	-132 dBm; 0.5 second update.

Accuracy:	Better than 10 metres in real time.
Antenna:	Mounted on tail of aircraft

GPS Base Station for Post-Survey Differential Correction

Model:	Novatel Millennium
Type:	Code and carrier tracking of L1 band, C/A code at 1575.32 MHz, and L2P-code at 1227 MHz. Dual frequency, 24-channel.
Sensitivity:	-90 dBm, 10 Hz update
Accuracy:	Manufacturer's stated accuracy for differential corrected GPS is better than 1 metre.
Antenna:	Mounted on nose of EM bird.

The Ashtech GG24 is a line of sight, satellite navigation system that utilizes time-coded signals from at least four of forty-eight available satellites. Both Russian GLONASS and American NAVSTAR satellite constellations are used to calculate the position and to provide real time guidance to the helicopter. A Novatel Millennium GPS unit was used as the base station receiver for post-survey processing of the flight path. The mobile and base station raw XYZ data were recorded, thereby permitting post-survey differential corrections for theoretical accuracies of better than 2 metres. A Marconi Allstar GPS unit, part of the CF1, was used as a back-up base station receiver.

The base station receiver is able to calculate its own latitude and longitude. For this survey, the primary GPS station was located at latitude 54°49'07.236"N, longitude 127°11'07.724"W at an elevation of 530.3 metres above the ellipsoid. The GPS records data relative to the WGS84 ellipsoid, which is the basis of the revised North American Datum (NAD83).

Conversion software is used to transform the WGS84 lat/long coordinates to the NAD83, UTM system displayed on the maps.

Radar Altimeter

Manufacturer:	Terra Corporation
Model:	TRA 3000 with TRI digital indicator
Type:	Single antenna
Sensitivity:	±5% at sample rate of 2 per second

The radar altimeter measures the vertical distance between the helicopter and the ground, except in areas of moderately dense tree cover. This information is used in the processing algorithm that determines conductor depth.

Barometric Pressure and Temperature Sensors

Model:	DIGHEM D 1300	
Type:	Motorola MPX4115AP analog pressure sensor AD592AN high-impedance remote temperature sensors	
Sensitivity:	Pressure: Temperature:	150 mV/kPa 100 mV/°C or 10 mV/°C (selectable)
Sample rate:	10 per second	

The D1300 circuit is used in conjunction with one barometric sensor and up to three temperature sensors. Two sensors (baro and temp) are installed in the EM console in the aircraft, to monitor pressure (1KPA) and internal (2TDC) and external (3TDC) operating temperatures.

Analog Recorder

Manufacturer:	RMS Instruments
Type:	DGR33 dot-matrix graphics recorder
Resolution:	4x4 dots/mm
Speed:	1.5 mm/sec

The analog profiles are recorded on chart paper in the aircraft during the survey. Table 3-1 lists the geophysical data channels and the vertical scale of each profile.

Table 3-1. The Analog Profiles

Channel Name	Parameter	Scale units/mm
1X9I	coaxial in-phase (1000 Hz)	2.5 ppm
1X9Q	coaxial quad (1000 Hz)	2.5 ppm
3P9I	coplanar in-phase (900 Hz)	2.5 ppm
3P9Q	coplanar quad (900 Hz)	2.5 ppm
2P7I	coplanar in-phase (7200 Hz)	5 ppm
2P7Q	coplanar quad (7200 Hz)	5 ppm
4X7I	coaxial in-phase (5500 Hz)	5 ppm
4X7Q	coaxial quad (5500 Hz)	5 ppm
5P5I	coplanar in-phase (56000 Hz)	10 ppm
5P5Q	coplanar quad (56000 Hz)	10 ppm
ALTR	altimeter (radar)	3 m
MAGC	magnetics, coarse	20 nT
MAGF	magnetics, fine	2.0 nT
CXSP	coaxial spherics monitor	
CPSP	coplanar spherics monitor	
CXPL	coaxial powerline monitor	
CPPL	coplanar powerline monitor	
1KPA	altimeter (barometric)	30 m
2TDC	internal temperature	1º C
3TDC	External temperature	1º C

Digital Data Acquisition System

Manufacturer:	RMS Instruments
Model:	DGR 33
Recorder:	San Disk compact flash card (PCMCIA)
Sampling rate:	10 Hz

The data are stored on a compact flash card (PCMCIA) and are downloaded to the field workstation PC at the survey base for verification, backup and preparation of in-field products.

Video Flight Path Recording System

Type:	Panasonic WV-CL322 VHS Colour Video Camera (NTSC)
Recorder:	Panasonic AG-720

Fiducial numbers are recorded continuously and are displayed on the margin of each image. This procedure ensures accurate correlation of data with respect to visible features on the ground.

4. QUALITY CONTROL

Digital data for each flight were transferred to the field workstation, in order to verify data quality and completeness. A database was created and updated using Geosoft Oasis Montaj and proprietary Fugro Atlas software. This allowed the field personnel to calculate, display and verify both the positional (flight path) and geophysical data on a screen or printer. Records were examined as a preliminary assessment of the data acquired for each flight.

In-field processing of Fugro survey data consists of differential corrections to the airborne GPS data, verification of EM calibrations, drift correction of the raw airborne EM data, spike rejection and filtering of all geophysical and ancillary data, verification of flight videos, calculation of preliminary resistivity data, diurnal correction, and preliminary leveling of magnetic data.

All data, including base station records, were checked on a daily basis, to ensure compliance with the survey contract specifications. Reflights were required if any of the following specifications were not met.

Navigation - Positional (x,y) accuracy of better than 10 m, with a CEP (circular error of probability) of 95%.

Flight Path	-	No lines to exceed ±25 m departure from nominal line spacing over a continuous distance of more than 1 km, except for reasons of safety.
Clearance	-	Mean terrain sensor clearance of 30 m, ±10 m, except where precluded by safety considerations, e.g., restricted or populated areas, severe topography, obstructions, tree canopy, aerodynamic limitations, etc.
Airborne Mag	-	Aerodynamic magnetometer noise envelope not to exceed 0.5 nT over a distance of more than 500 m.
Base Mag	-	Diurnal variations not to exceed 10 nT over a straight line time chord of 1 minute.
EM	-	Noise envelope not to exceed specified noise limits over a distance of more than 2 km. Fewer than 10 spheric spikes for any given frequency per 100 data samples.

5. DATA PROCESSING

Flight Path Recovery

The raw range data from at least four satellites are simultaneously recorded by both the base and mobile GPS units. The geographic positions of both units, relative to the model ellipsoid, are calculated from this information. Differential corrections, which are obtained from the base station, are applied to the mobile unit data to provide a post-flight track of the aircraft, accurate to within 2 m. Speed checks of the flight path are also carried out to determine if there are any spikes or gaps in the data.

The corrected WGS84 latitude/longitude coordinates are transformed to the UTM coordinate system used on the final maps. Images or plots are then created to provide a visual check of the flight path.

Electromagnetic Data

EM data are processed at the recorded sample rate of 10 samples/second. If necessary, appropriate spheric rejection filters are applied to reduce noise to acceptable levels. EM test profiles are then created to allow the interpreter to select the most appropriate EM anomaly picking controls for a given survey area. The EM picking parameters depend on several factors but are primarily based on the dynamic range of the resistivities within the survey area, and the types and expected geophysical responses of the targets being sought.

Anomalous electromagnetic responses are selected and analysed by computer to provide a preliminary electromagnetic anomaly map. The automatic selection algorithm is intentionally oversensitive to assure that no meaningful responses are missed. Using the preliminary map in conjunction with the multi-parameter stacked profiles, the interpreter then classifies the anomalies according to their source and eliminates those that are not substantiated by the data. The final interpreted EM anomaly map includes bedrock, surficial and cultural conductors. A map containing only bedrock conductors can be generated, if desired.

Apparent Resistivity

The apparent resistivity in ohm-m can be generated from the in-phase and quadrature EM components for any of the frequencies, using a pseudo-layer half-space model. The inputs to the resistivity algorithm are the inphase and quadrature amplitudes of the secondary field. The algorithm calculates the apparent resistivity in ohm-m, and the apparent height of the bird above the conductive source. The upper (pseudo) layer is merely an artifice to allow for the difference between the computed sensor-source distance and the measured sensor height, as determined by the radar or laser altimeter. Any errors in the altimeter reading, caused by heavy tree cover, are included in the pseudo-layer and do not affect the resistivity calculation. The apparent depth estimates, however, will reflect the altimeter errors.

In areas where the effects of magnetic permeability or dielectric permittivity have suppressed the inphase responses, the calculated resistivities will be erroneously high. Various algorithms and inversion techniques can be used to partially correct for the effects of permeability and permittivity.

Apparent resistivity maps portray all of the information for a given frequency over the entire survey area. This full coverage contrasts with the electromagnetic anomaly map, which provides information only over interpreted conductors. The large dynamic range afforded by the multiple frequencies makes the apparent resistivity parameter an excellent mapping tool.

The preliminary apparent resistivity maps and images are carefully inspected to identify any lines or line segments that might require base level adjustments. Subtle changes between in-flight calibrations of the system can result in line-to-line differences that are more recognizable in resistive (low signal amplitude) areas. If required, manual level adjustments are carried out to eliminate or minimize resistivity differences that can be attributed, in part, to changes in operating temperatures. These leveling adjustments are usually very subtle, and do not result in the degradation of discrete anomalies.

After the manual leveling process is complete, revised resistivity grids are created. The resulting grids can be subjected to a microleveling technique in order to smooth the data for contouring. The coplanar resistivity parameter has a broad 'footprint' that requires very little filtering.

The calculated resistivities for the three coplanar frequencies are included in the XYZ and grid archives. Values are in ohm-metres on all final products.

Resistivity-depth Sections (optional)

The apparent resistivities for all frequencies can be displayed simultaneously as coloured resistivity-depth sections. Usually, only the coplanar data are displayed as the close frequency separation between the coplanar and adjacent coaxial data tends to distort the section. The sections can be plotted using the topographic elevation profile as the surface. The digital terrain values, in metres a.m.s.l., can be calculated from the GPS Z-value or barometric altimeter, minus the aircraft radar altimeter.

Resistivity-depth sections can be created using any of the following three methods:

(1) Sengpiel resistivity sections, where the apparent resistivity for each frequency is plotted at the depth of the centroid of the in-phase current flow[1]; and,

(2) Differential resistivity sections, where the differential resistivity is plotted at the differential depth[2].

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1 Sengpiel, K.P., 1988, Approximate Inversion of Airborne EM Data from Multilayered Ground: Geophysical Prospecting 36, 446-459.

2 Huang, H. and Fraser, D.C., 1993, Differential Resistivity Method for Multi-frequency Airborne EM Sounding: presented at Intern. Airb. EM Workshop, Tucson, Ariz.

(3) Occam[3] or Multi-layer[4] inversion.

Both the Sengpiel and differential methods are derived from the pseudo-layer half-space model. Both yield a coloured resistivity-depth section that attempts to portray a smoothed approximation of the true resistivity distribution with depth. Resistivity-depth sections are most useful in conductive layered situations, but may be unreliable in areas of moderate to high resistivity where signal amplitudes are weak. In areas where in-phase responses have been suppressed by the effects of magnetite, or adversely affected by cultural features, the computed resistivities shown on the sections may be unreliable.

Both the Occam and multi-layer inversions compute the layered earth resistivity model that would best match the measured EM data. The Occam inversion uses a series of thin, fixed layers (usually 20 x 5m and 10 x 10m layers) and computes resistivities to fit the EM data. The multi-layer inversion computes the resistivity and thickness for each of a defined number of layers (typically 3-5 layers) to best fit the data.

Total Magnetic Field

A fourth difference editing routine was applied to the magnetic data to remove any spikes. A lag correction of –1.0 second was then applied.

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[3] Constable et al, 1987, Occam's inversion: a practical algorithm for generating smooth models from electromagnetic sounding data: Geophysics, 52, 289-300.

[4] Huang H., and Palacky, G.J., 1991, Damped least-squares inversion of time domain airborne EM data based on singular value decomposition: Geophysical Prospecting, 39, 827-844.

The aeromagnetic data were corrected for diurnal variation using the magnetic base station data. The results were then leveled using tie and traverse line intercepts. Manual adjustments were applied to any lines that required leveling, as indicated by shadowed images of the gridded magnetic data. The manually leveled data were then subjected to a microleveling filter.

Calculated Vertical Magnetic Gradient

The diurnally-corrected total magnetic field data were subjected to a processing algorithm that enhances the response of magnetic bodies in the upper 500 m and attenuates the response of deeper bodies. The resulting vertical gradient map provides better definition and resolution of near-surface magnetic units. It also identifies weak magnetic features that may not be evident on the total field map. However, regional magnetic variations and changes in lithology may be better defined on the total magnetic field map.

EM Magnetite (optional)

The apparent percent magnetite by weight is computed wherever magnetite produces a negative in-phase EM response. This calculation is more meaningful in resistive areas.

Magnetic Derivatives (optional)

The total magnetic field data can be subjected to a variety of filtering techniques to yield maps or images of the following:

analytic signal

residual magnetic intensity

second vertical derivative

reduction to the pole/equator

magnetic susceptibility with reduction to the pole

upward/downward continuations

All of these filtering techniques improve the recognition of near-surface magnetic bodies, with the exception of upward continuation. Any of these parameters can be produced on request.

Digital Terrain (optional)

The radar altimeter values (ALTR – aircraft to ground clearance) are subtracted from the differentially corrected and de-spiked GPS-Z values to produce profiles of the height above the ellipsoid along the survey lines. These values are gridded to produce contour maps showing approximate elevations within the survey area. The calculated digital terrain data are then tie-line leveled and adjusted to mean sea level. Any remaining subtle line-to-line discrepancies are manually removed. After the manual corrections are applied, the digital terrain data are filtered with a microleveling algorithm.

The accuracy of the elevation calculation is directly dependent on the accuracy of the two input parameters, ALTR and GPS-Z. The ALTR value may be erroneous in areas of heavy tree cover, where the altimeter reflects the distance to the tree canopy rather than the ground. The GPS-Z value is primarily dependent on the number of available satellites. Although post-processing of GPS data will yield X and Y accuracies in the order of 1-2 metres, the accuracy of the Z value is usually much less, sometimes in the ±10 metre range. Further inaccuracies may be introduced during the interpolation and gridding process.

Because of the inherent inaccuracies of this method, no guarantee is made or implied that the information displayed is a true representation of the height above sea level. Although this product may be of some use as a general reference, <u>THIS PRODUCT MUST NOT BE USED FOR NAVIGATION PURPOSES.</u>

Contour, Colour and Shadow Map Displays

The geophysical data are interpolated onto a regular grid using a modified Akima spline technique. The resulting grid is suitable for image processing and generation of contour maps. The grid cell size is 20% of the line interval.

Colour maps are produced by interpolating the grid down to the pixel size. The parameter is then incremented with respect to specific amplitude ranges to provide colour "contour" maps.

Monochromatic shadow maps or images are generated by employing an artificial sun to cast shadows on a surface defined by the geophysical grid. There are many variations in the shadowing technique. These techniques can be applied to total field or enhanced magnetic data, magnetic derivatives, resistivity, etc. The shadowing technique is also used as a quality control method to detect subtle changes between lines.

Multi-channel Stacked Profiles

Distance-based profiles of the digitally recorded geophysical data are generated and plotted at an appropriate scale. These profiles also contain the calculated parameters that are used in the interpretation process. These are produced as worksheets prior to interpretation, and are also presented in the final corrected form after interpretation. The profiles display electromagnetic anomalies with their respective interpretive symbols. Table 5-1 shows the parameters and scales for the multi-channel stacked profiles.

In Table 5-1, the log resistivity scale of 0.06 decade/mm means that the resistivity changes by an order of magnitude in 16.6 mm. The resistivities at 0, 33 and 67 mm up from the bottom of the digital profile are respectively 1, 100 and 10,000 ohm-m.

Table 5-1. Multi-channel Stacked Profiles

Channel Name (Freq)	Observed Parameters	Scale Units/mm
MAG10	total magnetic field (fine)	10 nT
MAG`100	total magnetic field (coarse)	100 nT
ALTBIRDM	EM sensor height above ground	6 m
CXI1000	vertical coaxial coil-pair in-phase (1000 Hz)	2 ppm
CXQ1000	vertical coaxial coil-pair quadrature (1000 Hz)	2 ppm
CPI900	horizontal coplanar coil-pair in-phase (900 Hz)	4 ppm
CPQ900	horizontal coplanar coil-pair quadrature (900 Hz)	4 ppm
CXI5500	vertical coaxial coil-pair in-phase (5500 Hz)	4 ppm
CXQ5500	vertical coaxial coil-pair quadrature (5500 Hz)	4 ppm
CPI7200	horizontal coplanar coil-pair in-phase (7200 Hz)	8 ppm
CPQ7200	horizontal coplanar coil-pair quadrature (7200 Hz)	8 ppm
CPI56K	horizontal coplanar coil-pair in-phase (56,000 Hz)	20 ppm
CPQ56K	horizontal coplanar coil-pair quadrature (56,000 Hz)	20 ppm
CXSP	coaxial spherics monitor	
CXPL	coaxial powerline monitor	
CPPL	coplanar powerline monitor	
CPSP	coplanar spherics monitor	
	Computed Parameters	
DIFI (mid-freq)	difference function in-phase from CXI and CPI	8 ppm
DIFQ (mid-freq)	difference function quadrature from CXQ and CPQ	8 ppm
RES900	log resistivity	.06 decade
RES7200	log resistivity	.06 decade
RES56K	log resistivity	.06 decade
DEP900	apparent depth	6 m
DEP7200	apparent depth	6 m
DEP56K	apparent depth	6 m
CDT	conductance	1 grade

6. PRODUCTS

This section lists the final maps and products that have been provided under the terms of the survey agreement and subsequent addenda. Other products can be prepared from the existing dataset, if requested. These include magnetic enhancements or derivatives, percent magnetite, resistivities corrected for magnetic permeability and/or dielectric permittivity, digital terrain, inversions, and overburden thickness. Most parameters can be displayed as contours, profiles, or in colour.

Base Maps

Base maps of the survey area were produced from BCTRIM digital data files provided by NDT Ventures Ltd. This process provides a relatively accurate, distortion-free base that facilitates correlation of the navigation data to the UTM grid. The topographic files were combined with geophysical data for plotting the final maps. All maps were created using the following parameters:

Projection Description:

Datum:	NAD83		
Ellipsoid:	Clarke 1866		
Projection:	UTM (Zone: 9)		
Central Meridian:	129°W		
False Northing:	0		
False Easting:	500000		
Scale Factor:	0.9996		
WGS84 to Local Conversion:	Molodensky		
Datum Shifts:	DX: 0	DY: 0	DZ: 0

The following parameters are presented on a single map sheet, at a scale of 1:20,000. All maps include flight lines and topography, claim outlines and EM anomalies, unless otherwise indicated.

Final Products

	No. of Map Sets		
	Mylar	Blackline	Colour
EM Anomalies	-	-	2
Total Magnetic Field	-	-	2
Calculated Vertical Magnetic Gradient	-	-	2
Apparent Resistivity 7200 Hz	-	-	2
Apparent Resistivity 56,000 Hz	-	-	2

<u>Additional Products</u>

Digital Archive (see Archive Description)	1 CD-ROM
Survey Report	2 copies
Multi-channel Stacked Profiles	All lines
Flight Path Videos (VHS)	5 cassettes
Analog chart data	15 rolls

7. SURVEY RESULTS

General Discussion

Table 7-1 summarizes the EM responses in the survey area, with respect to conductance grade and interpretation.

The anomalies shown on the electromagnetic anomaly map are based on a near-vertical, half plane model. This model best reflects "discrete" bedrock conductors. Wide bedrock conductors or flat-lying conductive units, whether from surficial or bedrock sources, may give rise to very broad anomalous responses on the EM profiles. These may not appear on the electromagnetic anomaly map if they have a regional character rather than a locally anomalous character. These broad conductors, which more closely approximate a half-space model, will be maximum coupled to the horizontal (coplanar) coil-pair and should be more evident on the resistivity parameter. Resistivity maps, therefore, may be more valuable than the electromagnetic anomaly maps, in areas such as this, where broad or flat-lying zones are also considered to be of importance. Contoured resistivity maps, based on the 7200 Hz and 56,000 Hz coplanar data are included with this report. Both resistivity lows and highs are considered to be of interest as siliceous alteration and low-sulphide porphyritic units can yield values that are higher than background. Conversely, alteration products and increased sulphide content can produce relative resistivity lows.

TABLE 7-1 EM ANOMALY STATISTICS

ZYMO PROJECT

CONDUCTOR GRADE	CONDUCTANCE RANGE SIEMENS (MHOS)	NUMBER OF RESPONSES
7	>100	1
6	50 - 100	0
5	20 - 50	1
4	10 - 20	4
3	5 - 10	25
2	1 - 5	525
1	<1	371
*	INDETERMINATE	127
TOTAL		1054

CONDUCTOR MODEL	MOST LIKELY SOURCE	NUMBER OF RESPONSES
B	DISCRETE BEDROCK CONDUCTOR	214
S	CONDUCTIVE COVER	455
D	DISCRETE BEDROCK CONDUCTOR	118
H	ROCK UNIT OR THICK COVER	182
E	EDGE OF WIDE CONDUCTOR	84
L	CULTURE	1
TOTAL		1054

(SEE EM MAP LEGEND FOR EXPLANATIONS)

Excellent resolution and discrimination of conductors was accomplished by using a fast sampling rate of 0.1 sec and by employing a “common” frequency (5500/7200 Hz) on two orthogonal coil-pairs (coaxial and coplanar). The resulting difference channel parameters often permit differentiation of bedrock and surficial conductors, even though they may exhibit similar conductance values.

Anomalies that occur near the ends of the survey lines (i.e., outside the survey area), should be viewed with caution. Some of the weaker anomalies could be due to aerodynamic noise, i.e., bird bending, which is created by abnormal stresses to which the bird is subjected during the climb and turn of the aircraft between lines. Such aerodynamic noise is usually manifested by an anomaly on the coaxial in-phase channel only, although severe stresses can affect the coplanar in-phase channels as well.

Magnetic Data

A Fugro CF-1 cesium vapour magnetometer was operated at the survey base to record diurnal variations of the earth's magnetic field. The clock of the base station was synchronized with that of the airborne system to permit subsequent removal of diurnal drift.

The total magnetic field data have been presented as contours on the base maps using a contour interval of 5 nT where gradients permit. The maps show the magnetic properties of the rock units underlying the survey area.

The total magnetic field data have been subjected to a processing algorithm to produce maps of the calculated vertical gradient. This procedure enhances near-surface magnetic units and suppresses regional gradients. It also provides better definition and resolution of magnetic units and displays weak magnetic features that may not be clearly evident on the total field maps.

There is some evidence on the magnetic maps that suggests that the survey area has been subjected to deformation and/or alteration. These structural complexities are evident on the contour maps as variations in magnetic intensity, irregular patterns, and as offsets or changes in strike direction. In addition, there are a few plug-like magnetic highs and lows that could reflect intrusive zones comprising magnetic or non-magnetic (felsic) material.

Magnetic values range from a high of 57,996 nT, on line 10830 at fiducial 4148, to a low of less than 56,570 nT on line 10120 at fiducial 2850.

The general strike in the survey block is roughly southeast, although there are at least four features that strike towards the east. There are no clearly-defined circular magnetic lows that can be attributed to felsic intrusions of attractive dimensions, but there are several plug-like magnetic highs that could reflect intermediate to mafic units. These are evident on the magnetic maps at the following locations:

Line	Fiducial	Line	Fiducial
10030	7685	10600	905
10140	1875	10650	6470

10140	1925	10660	5615
10150	1350	10670	5085
10180	8600	10750	8410
10210	6945	10760	8015
10260	4525	10790	6395
10361	2890	10830	4150
10380	1630	10890	1765
10420	6230	10900	1535
10440	5425	10970	7050
10540	4480	11030	5620
10550	3260	11100	3812
10550	3830	11110	3505

At least ten of the positive magnetic anomalies listed above appear to be associated with possible or probable bedrock conductors, while five or more give rise to relative resistivity highs.

Strong dipolar magnetic lows are evident on line 10140 at 1855, and at the northern end of line 10850.

Some of the smaller and weaker magnetic anomalies on the property may also be of interest. The Mount Milligan porphyry, for example, hosts three small magnetic anomalies that were only about 60 nT above background within a 450 m oblate resistivity high.

The magnetic results, in conjunction with the other geophysical parameters, have provided valuable information that can be used to effectively map the geology and structure in the survey area.

Apparent Resistivity

Apparent resistivity maps, which display the conductive properties of the survey area, were produced from the 7200 Hz and 56,000 Hz coplanar data. The maximum resistivity values, which are calculated for each frequency, are 8,000 and 20,000 ohm-m respectively. These cutoffs eliminate the erratic higher resistivities that would result from unstable ratios of very small EM amplitudes.

In general, the resistivity patterns show only moderate agreement with the magnetic trends. This suggests that some of the resistivity lows are probably related to near-surface conductive units or overburden, rather than deeper bedrock features. There are some areas, however, where resistivity contour patterns appear to be controlled or partially influenced by magnetic units, zones of structural deformation, and topography.

There are several resistive zones on the property. Although many of these could be due to non-conductive country rock, it is possible that they could also be attributed to any of the following causes:

- A thick frozen layer, particularly on north-facing slopes.
- A lack of conductive cover over topographic highs.
- In-phase suppression by magnetite, over the stronger magnetic units.
- Layers or plug-like intrusions of more resistive (siliceous) material.

Those that fall into the latter category would obviously be of greater interest, particularly if they coincide with similarly shaped magnetic lows.

Some of the broad conductive zones have been attributed to near-surface sources, such as overburden. However, as they sometimes occur on high ground that would normally have less conductive overburden, some of these could reflect conductive rock units or zones of alteration, that might also warrant further investigation.

There is no consistent relationship between magnetic susceptibility and conductivity, although most of the stronger magnetic anomalies give rise to higher resistivities. It should be noted that in many cases, this correlation could be coincidental, rather than direct.

Although sulphide mineralization is more likely to give rise to resistivity lows, porphyry-type mineralization is often associated with relative resistivity highs, due to the calc-alkaline host rocks. Depending on the type of mineralization expected in the area, it is possible that some of the resistive, non-magnetic (or magnetic) zones could prove to be as important as the conductive (sulphide-type) responses.

Electromagnetic Anomalies

The EM anomalies resulting from this survey appear to fall within one of three general categories. The first type consists of discrete, well-defined anomalies that yield marked inflections on the difference channels. These anomalies are usually attributed to faults or shears, conductive sulphides, or graphite, and are generally given a "B", "T" or "D" interpretive symbol, denoting a bedrock source.

The second class of anomalies comprises moderately broad responses that exhibit the characteristics of a half-space and do not yield well-defined inflections on the difference channels. Anomalies in this category are usually given an "S" or "H" interpretive symbol. The lack of a difference channel response usually implies a broad or flat-lying conductive source such as overburden. Some of these anomalies could reflect alteration zones, conductive rock units, or zones of deep weathering, all of which can yield “non-discrete” signatures.

The effects of conductive overburden are evident in some of the topographic depressions and on the south-facing slopes. Although the difference channels (DIFI and DIFQ) are extremely valuable in detecting bedrock conductors that are partially masked by conductive overburden, sharp undulations in the bedrock/overburden interface can yield anomalies in the difference channels which may be interpreted as possible bedrock conductors. Such anomalies usually fall into the "S?" or "B?" classification but may also be given an "E" interpretive symbol, denoting a resistivity contrast at the edge of a conductive unit.

The "?" symbol does not question the validity of an anomaly, but instead indicates some degree of uncertainty as to which is the most appropriate EM source model. This ambiguity results from the combination of effects from two or more conductive sources, such as overburden and bedrock, gradational changes, or moderately shallow dips. The presence of a conductive upper layer has a tendency to mask or alter the characteristics of bedrock conductors, making interpretation difficult. This problem is further exacerbated in the presence of magnetite.

The third anomaly category includes responses that are associated with magnetite. Magnetite can cause suppression or polarity reversals of the in-phase components, particularly at the lower frequencies in resistive areas. The effects of magnetite-rich rock units are usually evident on the multi-parameter geophysical data profiles as negative excursions of the lower frequency in-phase channels.

In areas where EM responses are evident primarily on the quadrature components, zones of poor conductivity are indicated. Where these responses are coincident with magnetic anomalies, it is possible that the in-phase component amplitudes have been suppressed by the effects of magnetite. Poorly-conductive magnetic features can give rise to resistivity anomalies that are only slightly below or slightly above background. If it is expected that poorly-conductive economic mineralization could be associated with magnetite-rich units, most of these weakly anomalous features will be of interest. In areas where magnetite causes the in-phase components to become negative, the apparent conductance and depth of EM anomalies will be unreliable. Magnetite effects usually give rise to overstated (higher) resistivity values and understated (shallow) depth calculations.

As targets of interest within the survey area can be associated with magnetic sulphides such as pyrrhotite, non-magnetic (siliciclastic) units, or possibly magnetite-rich plugs, it is impractical to assess the relative merits of EM anomalies on the basis of conductance or magnetic correlation. It is recommended that an attempt be made to compile a suite of geophysical "signatures" over any known areas of interest. Anomaly characteristics are clearly defined on the multi-parameter geophysical data profiles that are supplied as one of the survey products. It is unlikely that disseminated mineralization in the survey area would yield discrete conductors, unless it was associated with intense alteration, or associated with appreciable amounts of conductive material. Nevertheless, there are a few conductive zones in the survey area that are considered to be moderate to high priority targets, plus several other weaker, poorly-defined anomalies that may also be of interest.

Potential Targets in the Survey Area

The magnetic and resistive characteristics of porphyry deposits are quite diverse, which often makes them difficult to detect. Although felsic to intermediate intrusions normally yield low to moderate magnetic signatures, the presence of magnetite or magnetic sulphides would obviously contribute to a stronger magnetic anomaly. The resistivity values would be affected differently, with magnetite generally yielding higher resistivities, and increases in sulphide content giving rise to lower resistivities. Resistivities are also affected by the degree and type of alteration associated with the deposit. Porphyries can therefore be either more or less conductive than background, with or without magnetic correlation.

It is not known if the Mount Milligan geophysical signature would be applicable to porphyritic intrusions on the Zymo Property, but the resistive, weakly magnetic signature should serve as a starting model. Any plug-like resistivity anomalies are considered to be potential areas of interest, given the proximity of this property to other porphyry deposits in the area.

The electromagnetic anomaly map shows the anomaly locations with the interpreted conductor type, dip, conductance and depth being indicated by symbols. Direct magnetic correlation is also shown if it exists. The strike direction and length of the inferred bedrock conductors are indicated only where anomalies can be correlated from line to line with a reasonable degree of confidence.

The following list includes a few of the more attractive geophysical responses. These comprise both porphyry-type and sulphide-type signatures. Because of the large variations in resistivity and magnetic association expected over porphyry-type deposits in the general area, no attempt has been made to assign priorities to these responses.

Anomaly	Type	Mag	Comments
10011C	D	-	A short, thin bedrock conductor is located near the northern contact of a large plug-like magnetic anomaly.
10011D	D	-	This thin bedrock conductor strikes southeast, parallel to tie line 19060. The conductor is at least 500 m long, and is open to the west. Weak magnetic correlation is evident at its eastern end (10060D) where a NE-dipping source is indicated.
10022F 10022G 10030H 10060D 10060E 10070F 10080H	D D B D D D D	- - - 23 - - -	These anomalies generally reflect portions of thin NE-dipping conductors within, or near the edges of an interesting resistivity low shown on the EM map as Zone A. Most of zone A is non-magnetic, although anomaly 10110G, 10130M and 10140K yield direct magnetic correlation in the eastern lobe. Conductance is variable within the zone, but anomaly 10080H yields a resistivity of less than 10 ohm-m.

10050M	D	23	A short, thin conductor is associated with the contact of a small magnetic anomaly that is contained within an elliptical resistivity high.
10060B	E	55	This anomaly occurs at the southern edge of a conductive unit and has been attributed to a resistivity contrast. Note the resistive hill to the southwest. The magnetic correlation may indicate a mineralized contact.
10070A	D	-	A short, thin conductor is associated with a small ravine. The magnetic contours suggest a sinistral offset in this area. This weak conductor occurs near the eastern edge of an oblate resistivity high, at the southern contact of a large plug-like magnetic unit.
10120C	D	123	A short, weakly conductive thin source is associated with a small, plug-like magnetic high.
10130G	D	-	An extremely weak quadrature response occurs on the northern flank of a small, strong , oblate magnetic plug. The coincident resistivity high is due to magnetite suppression of the inphase responses.
10140H	B?	-	This conductor is similar to 10130G in that it is located near the northern contact of a strong magnetic unit. The magnetic high strikes east, on the north slope of a topographic high. The associated resistivity high has been attributed to magnetite suppression.
10150B	B?	89	The compression of fiducial points in this area indicates a low survey speed that may have permitted bird swing. However, this anomalous response is coincident with an interesting magnetic high that is located near the southern edge of conductive Zone B.
10160J	D	-	Anomaly 10160J is part of an ESE-trending conductor that exhibits a strike length of at least 1 km. This non-magnetic, thin conductor suggests a NE-dipping source that is paralleled by secondary conductors at 10160K and 10180M. It is located on the northeastern slope of a resistive hill.
10180B	D	-	This anomaly is one of several discrete sources that are contained within, but near the southern margin of Zone B, a broad, weak, near-surface conductive unit that is located on a SW-facing slope, immediately north of Red Canyon Creek. The magnetic low, south of 10180E could be due to a north-trending break.

10180E 10190F	D D	- -	Anomaly 10170D-10180E reflects a thin, NE-dipping conductor that parallels the topography in this area. Anomaly 10190F exhibits a very similar EM signature, but is associated with the southern contact of a small, plug-like magnetic high.
10240G 10250E 10260E	B? B? B?	44 - -	These three poorly-defined anomalies are associated with an ESE-trending resistivity low, but all appear to be associated with different magnetic sources. Anomaly 10240G correlates with a small mag high; 10250E is associated with a relative low; 10260E is on the flank of a second linear magnetic source.
10330I 10350I	B? B?	- -	These two weak responses are associated with an ESE-trending linear magnetic feature that is clearly defined on the vertical gradient map.
10270C 10310C 10320C 10350C 10350D 10430F	D D B? D D D	- - - - - -	These anomalies are all part of an ESE-trending resistivity low in a non-magnetic unit. Most anomalies reflect thin, NE-dipping sources that define two or more segmented conductors over a strike length of about 2.5 km. Possible offsets may be inferred in the vicinity of 10300C, 10340C and 10390E. Conductor segment 10370E-10380E yields direct magnetic correlation.
10400F	D	72	A weak conductor of probable bedrock origin occurs on an east-trending magnetic unit, near an inferred south-trending break.
10410L	S?	-	This weak response coincides with a small lake, and is likely due to surficial conductivity. However, it is associated with a weak magnetic trough that could reflect a SSE-trending break through the large magnetic unit that dominates the northeastern quadrant of the property.

10400B 10460C 10470C 10560A 10620B 10680D 10800A 10820A 10850A 10920A	S H B? H B? E S B? B D	- 26 55 - - - - - - -	A broad, poorly-defined conductive zone is evident along Red Canyon Creek. Zone C is associated with a unit of lower magnetic susceptibility, but the two are probably not due to the same causative source. The broad EM responses generally indicate a thick conductive half-space, which is overlain by more resistive cover in some areas. The western portion of the zone coincides with the eastern end of a magnetic unit, and a few anomalies yield magnetic correlation in this area. The magnetic zone skirts the northern edge of the conductive zone, with a strong plug-like high centered on 10560C. While most anomalies comprising Zone C yield broad, poorly-defined signatures, there are a few discrete responses that could reflect thinner or buried bedrock sources. Examples would include anomalies 10850A and 10920A.
10430J	B?	35	A probable bedrock conductor occurs south of a creek, at the edge of a resistivity high/magnetic low that follows the topographic depression. The conductor is probably related to the contact, but yields magnetic correlation.
10510K	E	-	This anomaly is part of a linear trend that follows the northern contact of a major magnetic anomaly. Although the anomalies comprising this 700m-long trend yield the characteristics of an ”edge effect”, they could possibly reflect weak mineralization along the (faulted?) peripheral contact of the magnetic unit.
10530G	B?	79	Extremely weak conductor, but coincident with a small, SE-trending magnetic high.
10560N	L	284	Not a target. This strong magnetic conductor is due to a metal bridge.
10570D 10590D 10590E 10610D 10660F 10660E	B B? B? B? S? B?	- - 10 - - 74	The anomalies in this group are associated with a subtle resistivity low that is located between two circular, plug-like magnetic highs centered on line 10581 and anomaly 10660E. The second isolated magnetic high is evident at the eastern end of this zone, at 10660F and 10660E. The latter anomaly is associated with a relative resistivity high between two small creeks.
10581H	B?	-	This is part of a 200m-long, ESE-trending conductor that abuts the western contact of a weak magnetic high. The most conductive part of this conductor is at 10560K and L, where two probable sources are indicated.

10660K	D	-	An ESE-trending resistivity low correlates with a relative magnetic low that follows the elevation contours along the south slope of a topographic high. The hill to the north is magnetic, and the increased magnetite content gives rise to a coincident resistivity high. Anomaly 10660K reflects a thin, northeast-dipping bedrock conductor that is associated with the magnetic trough. This conductor exhibits a strike length of approximately 650m, although the resistivity low extends at least as far as 105810, a distance of more than 1.2 km.
10650L	H	85	This broad response suggests a weakly conductive source near surface, but it is located at the centre of a large, strong, oblate magnetic high, with a diameter of about 1.2 km. Most of the EM anomalies that occur within, or near the peripheral contact of this magnetic unit may be of interest. These would include 10570I, 10581L, 10600C, 10630H, 10630I, 10640I, 10660H, 10660J, 10700E and 10700F. Anomalies 10731D and 10740G, to the east, might also warrant attention.
10760C	J	11	An isolated broad, poorly-defined response is located on a SSE-trending magnetic contact along the western side of a resistive hill.
10760E	QE	59	This weak response is probably due to the sharp contrast at the southern edge of a circular resistivity high, but could also be due to a weakly mineralized contact. The resistive unit is also magnetic. The 58 nT magnetic correlation at 10760E appears to be related to a small magnetic feature on the south edge of the larger plug-like magnetic high on a topographic ridge. A probable south-trending break at the eastern edge of the interesting magnetic high, can be inferred from the magnetic data.
10830E	B?	-	A very weak, poorly-defined response occurs near the centre of a strong, plug-like magnetic unit with a diameter of about 550m. A subtle magnetic low is evident near the core of this unit, just south of anomaly 10830E. Any anomalies associated with this unit might be potential targets for further investigation. Examples include 10790E, 10800C, 10830D, 10860E, 10880D, and anomaly 19020C on the tie line.

10900A	B?	112	This is one of several anomalies associated with a moderate resistivity low, outlined on the EM map as Zone D. There is an elongate, SE-trending magnetic anomaly centered near 10900A. Several responses in Zone D reflect a conductive second layer, covered by more resistive material at surface. Most anomalies yield direct magnetic correlation, which tends to enhance their significance.
19050F	S	-	This tie-line anomaly occurs near a small lake and is probably due to a surficial source. However, it is located on the eastern flank of a small plug-like magnetic high that is also resistive. A south-trending linear magnetic low may be indicative of a structural break along the western side of the resistive topographic high.
10890E	D	-	A very weak, thin conductor is evident on a subtle magnetic low that follows a small creek. The linear nature of the east-trending magnetic low may be indicative of a fault-controlled depression that continues along the top edge of Zone E, to the east.
10940C	D	19	This thin bedrock source continues from 10920D to the canyon at 10940D, were it appears to be dextrally offset to the south, near the edge of conductive Zone E. Both 10920D and 10940C yield direct magnetic correlation.
10970C 11000B 11020B	B? B? B?	- 19 -	These three anomalies reflect short conductor segments that appear to be located near the margins of Zone E, a moderately wide resistivity low that overlies an area of structural complexity. North-, east-, and SE-trending magnetic lows intersect in the vicinity of anomaly 11020A.
11250A	B?	-	An extremely weak, short, thin conductor occurs on the south-facing slope of a hill. The hill gives rise to a relative resistivity high. There is no appreciable magnetic correlation but the anomaly is associated with a subtle low, within a unit of relatively low susceptibility.
11270A	H	32	This broad anomaly is part of Zone F, a moderate resistivity low at the eastern end of a magnetic unit. The conductive zone is open to the east, beyond the property boundary.

In addition to the foregoing, there are several other magnetic anomalies that might be of interest. Examples include the highs on line 11030 at fiducial 5620, line 11100 at 3812, and

11110 at 3505. There are also a few resistive units that might reflect Si-rich intrusions or caps, such as those on line 10770 at fiducials 7256 and 7400, line 10890 at 1770, 10950 at 7690, 11140 at 2610, and line 11160 at 2122.

There are several other subtle resistivity lows, many of which are associated with magnetite, that have not been described in the foregoing table. Some of these may also be of interest. The numerous negative inphase responses on the property clearly indicate the presence of magnetite-rich units, which might reflect skarn type mineralization.

The foregoing table provides a very brief description of what are considered to be the more attractive anomalies. There are several other weak or broad responses that have been attributed to possible surficial sources. These may also be of interest in the search for broad zones of weakly conductive mineralization, particularly if they are associated with changes in magnetic intensity and/or zones of structural deformation. Some of the isolated resistivity or magnetic anomalies may also reflect potential target areas, even if they do not exhibit discrete conductor signatures.

8. CONCLUSIONS AND RECOMMENDATIONS

This report provides a very brief description of the survey results and describes the equipment, data processing procedures and logistics of the survey over the Zymo Property.

There are a few circular or plug-like resistivity anomalies, some of which are associated with magnetite-rich zones. These might reflect intrusive units of felsic to intermediate composition. Both conductive and resistive zones are considered to be potential hosts for mineral deposition in this area.

The various maps included with this report display the magnetic and conductive properties of the survey property. It is recommended that a complete assessment and detailed evaluation of the survey results be carried out, in conjunction with all available geophysical, geological and geochemical information. Particular reference should be made to the multi-parameter data profiles that clearly define the characteristics of the individual anomalies.

Most anomalies are moderately weak and poorly defined but the survey has defined several highly conductive zones. Many have been attributed to conductive overburden, alteration, or deep weathering, although some are associated with magnetite-rich rock units that could host disseminated to semi-massive mineralization. Others coincide with magnetic gradients that could reflect contacts, faults or shears. Such structural breaks are considered to be of particular interest as they may have influenced or controlled the emplacement of economic mineralization within the survey area.

The anomalous resistivity zones and the possible bedrock conductors defined by the survey should be subjected to further investigation, using appropriate surface exploration techniques. Anomalies that are currently considered to be of moderately low priority may require upgrading if they occur in areas of favourable geology or geochemistry, or if follow-up results are encouraging.

It is also recommended that image processing of existing geophysical data be considered, in order to extract the maximum amount of information from the survey results. Current software and imaging techniques often provide valuable information on structure and lithology, which may not be clearly evident on the contour and colour maps. These techniques can yield images that define subtle, but significant, structural details.

Respectfully submitted,

FUGRO AIRBORNE SURVEYS CORP.

Paul A. Smith
Geophysicist

R04097FEB.05

APPENDIX A

LIST OF PERSONNEL

The following personnel were involved in the acquisition, processing, interpretation and presentation of data, relating to a DIGHEM^{V} airborne geophysical survey carried out for NDT Ventures Ltd., over the Zymo Property, Smithers, B.C.

David Miles	Manager, Helicopter Operations
Emily Farquhar	Manager, Data Processing and Interpretation
Jazz Bola	Geophysical Operator
Yuri Mironenko	Geophysical Operator
Jeff Fleming	Field Geophysicist/Crew Leader
Wally Zec	Pilot (Questral Helicopters)
Bill Hoffstede	Pilot (Questral Helicopters)
Stephen Harrison	Geophysicist/ Data Processor
Paul A. Smith	Interpretation Geophysicist
Lyn Vanderstarren	Drafting Supervisor
Susan Pothiah	Word Processing Operator
Albina Tonello	Secretary/Expeditor

The survey consisted of 823 km of coverage, flown from November 24 to December 10, 2004.

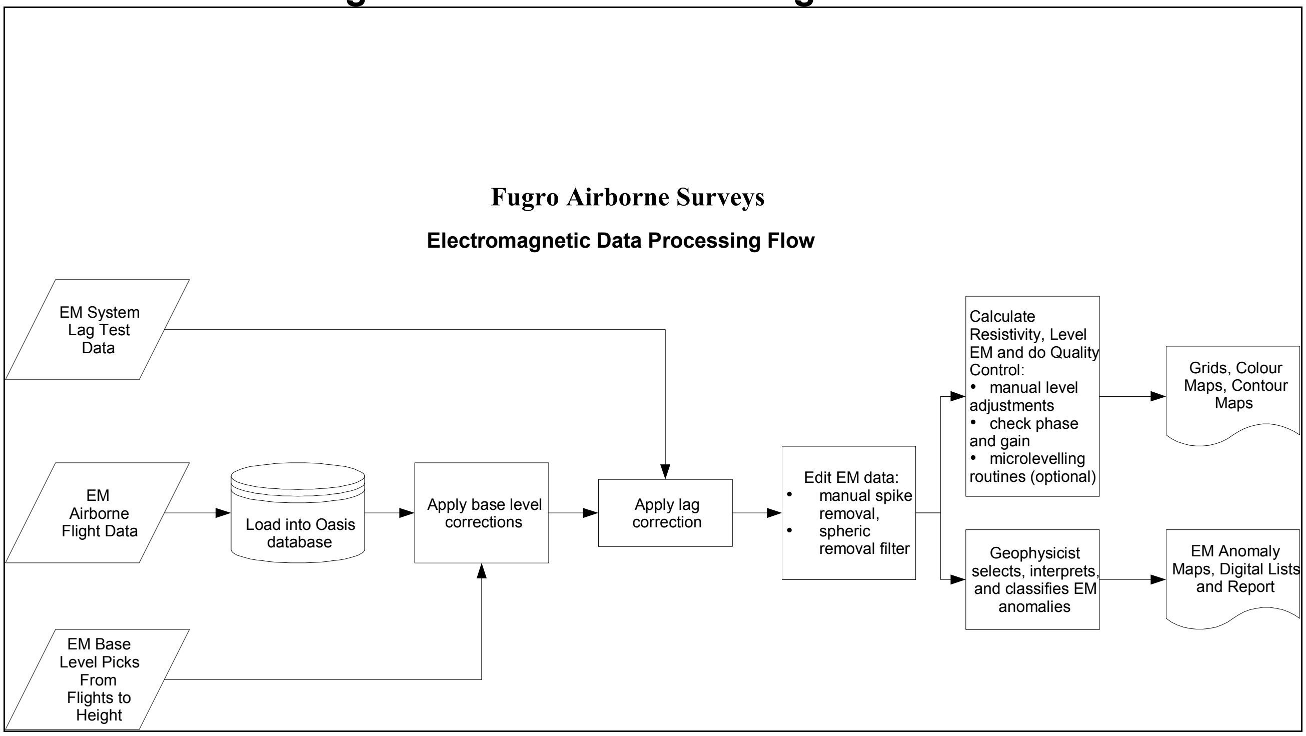
All personnel are employees of Fugro Airborne Surveys, except for the pilots who are employees of Questral Helicopters Ltd.

APPENDIX B

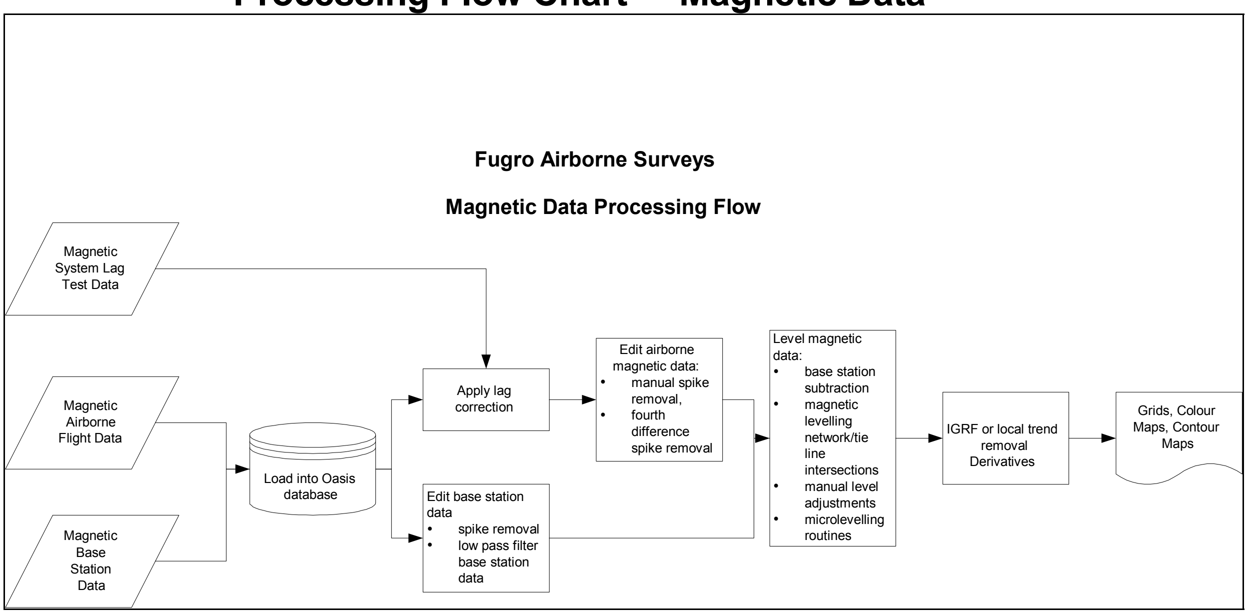
DATA PROCESSING FLOWCHARTS

APPENDIX B

Processing Flow Chart - Electromagnetic Data



Processing Flow Chart - Magnetic Data



BACKGROUND INFORMATION

Electromagnetics

Fugro electromagnetic responses fall into two general classes, discrete and broad. The discrete class consists of sharp, well-defined anomalies from discrete conductors such as sulphide lenses and steeply dipping sheets of graphite and sulphides. The broad class consists of wide anomalies from conductors having a large horizontal surface such as flatly dipping graphite or sulphide sheets, saline water-saturated sedimentary formations, conductive overburden and rock, kimberlite pipes and geothermal zones. A vertical conductive slab with a width of 200 m would straddle these two classes.

The vertical sheet (half plane) is the most common model used for the analysis of discrete conductors. All anomalies plotted on the geophysical maps are analyzed according to this model. The following section entitled **Discrete Conductor Analysis** describes this model in detail, including the effect of using it on anomalies caused by broad conductors such as conductive overburden.

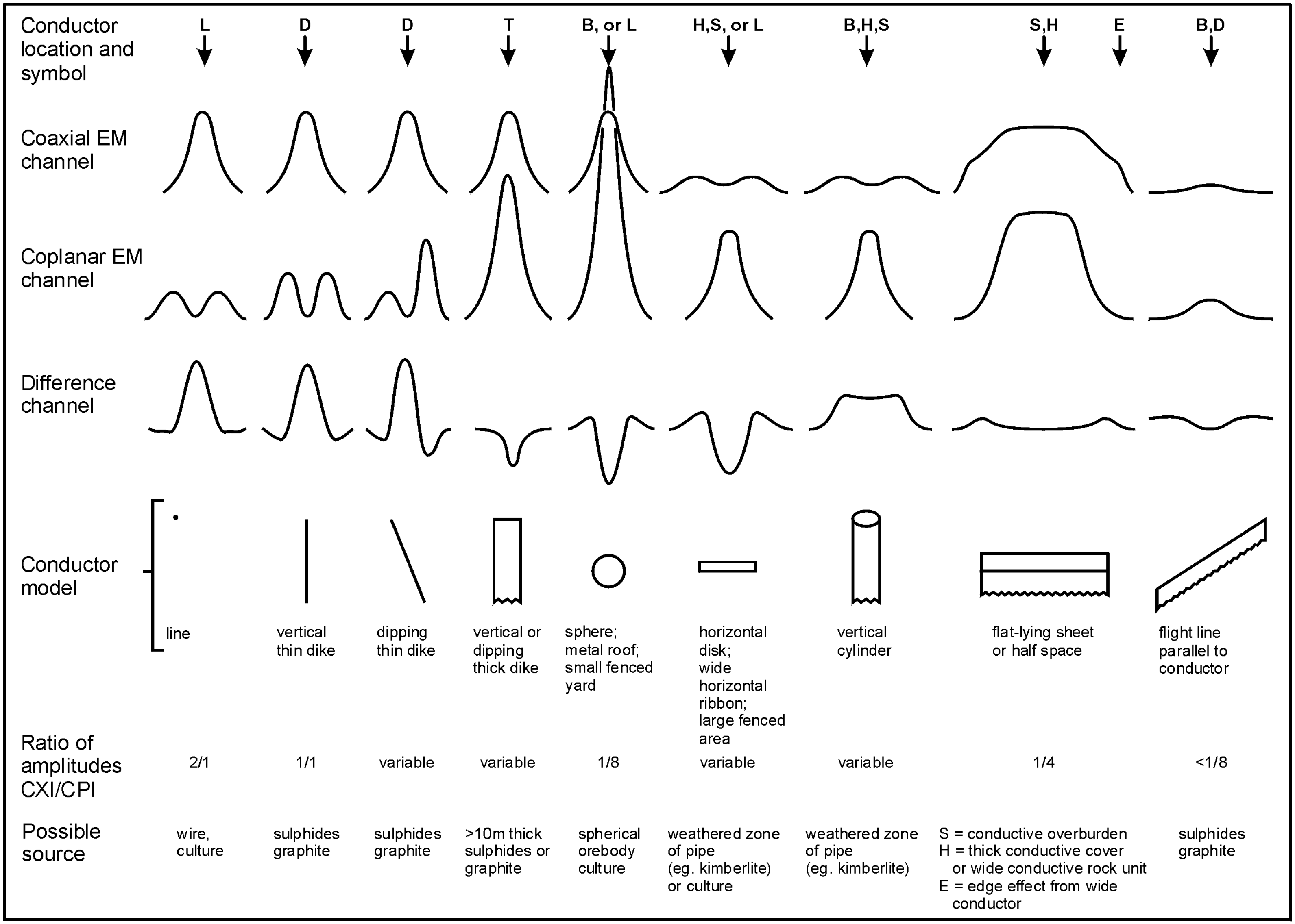
The conductive earth (half-space) model is suitable for broad conductors. Resistivity contour maps result from the use of this model. A later section entitled **Resistivity Mapping** describes the method further, including the effect of using it on anomalies caused by discrete conductors such as sulphide bodies.

Geometric Interpretation

The geophysical interpreter attempts to determine the geometric shape and dip of the conductor. Figure C-1 shows typical HEM anomaly shapes which are used to guide the geometric interpretation.

Discrete Conductor Analysis

The EM anomalies appearing on the electromagnetic map are analyzed by computer to give the conductance (i.e., conductivity-thickness product) in siemens (mhos) of a vertical sheet model. This is done regardless of the interpreted geometric shape of the conductor. This is not an unreasonable procedure, because the computed conductance increases as the electrical quality of the conductor increases, regardless of its true shape. DIGHEM anomalies are divided into seven grades of conductance, as shown in Table C-1. The conductance in siemens (mhos) is the reciprocal of resistance in ohms.



Typical DIGHEM anomaly shapes

Figure C-1

The conductance value is a geological parameter because it is a characteristic of the conductor alone. It generally is independent of frequency, flying height or depth of burial, apart from the averaging over a greater portion of the conductor as height increases. Small anomalies from deeply buried strong conductors are not confused with small anomalies from shallow weak conductors because the former will have larger conductance values.

Table C-1. EM Anomaly Grades

Anomaly Grade	Siemens
7	> 100
6	50 - 100
5	20 - 50
4	10 - 20
3	5 - 10
2	1 - 5
1	< 1

Conductive overburden generally produces broad EM responses which may not be shown as anomalies on the geophysical maps. However, patchy conductive overburden in otherwise resistive areas can yield discrete anomalies with a conductance grade (cf. Table C-1) of 1, 2 or even 3 for conducting clays which have resistivities as low as 50 ohm-m. In areas where ground resistivities are below 10 ohm-m, anomalies caused by weathering variations and similar causes can have any conductance grade. The anomaly shapes from the multiple coils often allow such conductors to be recognized, and these are indicated by the letters S, H, and sometimes E on the geophysical maps (see EM legend on maps).

For bedrock conductors, the higher anomaly grades indicate increasingly higher conductances. Examples: the New Insco copper discovery (Noranda, Canada) yielded a grade 5 anomaly, as did the neighbouring copper-zinc Magusi River ore body; Mattabi (copper-zinc, Sturgeon Lake, Canada) and Whistle (nickel, Sudbury, Canada) gave grade 6; and the Montcalm nickel-copper discovery (Timmins, Canada) yielded a grade 7 anomaly. Graphite and sulphides can span all grades but, in any particular survey area, field work may show that the different grades indicate different types of conductors.

Strong conductors (i.e., grades 6 and 7) are characteristic of massive sulphides or graphite. Moderate conductors (grades 4 and 5) typically reflect graphite or sulphides of a less massive character, while weak bedrock conductors (grades 1 to 3) can signify poorly connected graphite or heavily disseminated sulphides. Grades 1 and 2 conductors may not respond to ground EM equipment using frequencies less than 2000 Hz.

The presence of sphalerite or gangue can result in ore deposits having weak to moderate conductances. As an example, the three million ton lead-zinc deposit of Restigouche Mining Corporation near Bathurst, Canada, yielded a well-defined grade 2 conductor. The 10 percent by volume of sphalerite occurs as a coating around the fine grained massive pyrite, thereby inhibiting electrical conduction. Faults, fractures and shear zones may produce anomalies that typically have low conductances (e.g., grades 1 to 3). Conductive rock formations can yield anomalies of any conductance grade. The conductive materials in such rock formations can be salt water, weathered products such as clays, original depositional clays, and carbonaceous material.

For each interpreted electromagnetic anomaly on the geophysical maps, a letter identifier and an interpretive symbol are plotted beside the EM grade symbol. The horizontal rows of dots, under the interpretive symbol, indicate the anomaly amplitude on the flight record. The vertical column of dots, under the anomaly letter, gives the estimated depth. In areas where anomalies are crowded, the letter identifiers, interpretive symbols and dots may be obliterated. The EM grade symbols, however, will always be discernible, and the obliterated information can be obtained from the anomaly listing appended to this report.

The purpose of indicating the anomaly amplitude by dots is to provide an estimate of the reliability of the conductance calculation. Thus, a conductance value obtained from a large ppm anomaly (3 or 4 dots) will tend to be accurate whereas one obtained from a small ppm anomaly (no dots) could be quite inaccurate. The absence of amplitude dots indicates that the anomaly from the coaxial coil-pair is 5 ppm or less on both the in-phase and quadrature channels. Such small anomalies could reflect a weak conductor at the surface or a stronger conductor at depth. The conductance grade and depth estimate illustrates which of these possibilities fits the recorded data best.

The conductance measurement is considered more reliable than the depth estimate. There are a number of factors that can produce an error in the depth estimate, including the averaging of topographic variations by the altimeter, overlying conductive overburden, and the location and attitude of the conductor relative to the flight line. Conductor location and attitude can provide an erroneous depth estimate because the stronger part of the conductor may be deeper or to one side of the flight line, or because it has a shallow dip. A heavy tree cover can also produce errors in depth estimates. This is because the depth estimate is computed as the distance of bird from conductor, minus the altimeter reading. The altimeter can lock onto the top of a dense forest canopy. This situation yields an erroneously large depth estimate but does not affect the conductance estimate.

Dip symbols are used to indicate the direction of dip of conductors. These symbols are used only when the anomaly shapes are unambiguous, which usually requires a fairly resistive environment.

A further interpretation is presented on the EM map by means of the line-to-line correlation of bedrock anomalies, which is based on a comparison of anomaly shapes on adjacent lines. This provides conductor axes that may define the geological structure over portions of the survey area. The absence of conductor axes in an area implies that anomalies could not be correlated from line to line with reasonable confidence.

The electromagnetic anomalies are designed to provide a correct impression of conductor quality by means of the conductance grade symbols. The symbols can stand alone with geology when planning a follow-up program. The actual conductance values are printed in the attached anomaly list for those who wish quantitative data. The anomaly ppm and depth are indicated by inconspicuous dots which should not distract from the conductor patterns, while being helpful to those who wish this information. The map provides an interpretation of conductors in terms of length, strike and dip, geometric shape, conductance, depth, and thickness. The accuracy is comparable to an interpretation from a high quality ground EM survey having the same line spacing.

The appended EM anomaly list provides a tabulation of anomalies in ppm, conductance, and depth for the vertical sheet model. No conductance or depth estimates are shown for weak anomalous responses that are not of sufficient amplitude to yield reliable calculations.

Since discrete bodies normally are the targets of EM surveys, local base (or zero) levels are used to compute local anomaly amplitudes. This contrasts with the use of true zero levels which are used to compute true EM amplitudes. Local anomaly amplitudes are shown in the EM anomaly list and these are used to compute the vertical sheet parameters of conductance and depth.

Questionable Anomalies

The EM maps may contain anomalous responses that are displayed as asterisks (*). These responses denote weak anomalies of indeterminate conductance, which may reflect one of the following: a weak conductor near the surface, a strong conductor at depth (e.g., 100 to 120 m below surface) or to one side of the flight line, or aerodynamic noise. Those responses that have the appearance of valid bedrock anomalies on the flight profiles are indicated by appropriate interpretive symbols (see EM legend on maps). The others probably do not warrant further investigation unless their locations are of considerable geological interest.

The Thickness Parameter

A comparison of coaxial and coplanar shapes can provide an indication of the thickness of a steeply dipping conductor. The amplitude of the coplanar anomaly (e.g., CPI channel) increases relative to the coaxial anomaly (e.g., CXI) as the apparent thickness increases, i.e., the thickness in the horizontal plane. (The thickness is equal to the conductor width if the conductor dips at 90 degrees and strikes at right angles to the flight line.) This report refers to a conductor as <u>thin</u> when the thickness is likely to be less than 3 m, and <u>thick</u> when in excess of 10 m. Thick conductors are indicated on the EM map by parentheses "( )". For base metal exploration in steeply dipping geology, thick conductors can be high priority targets because many massive sulphide ore bodies are thick. The system cannot sense the thickness when the strike of the conductor is subparallel to the flight line, when the conductor has a shallow dip, when the anomaly amplitudes are small, or when the resistivity of the environment is below 100 ohm-m.

Resistivity Mapping

Resistivity mapping is useful in areas where broad or flat lying conductive units are of interest. One example of this is the clay alteration which is associated with Carlin-type deposits in the south west United States. The resistivity parameter was able to identify the clay alteration zone over the Cove deposit. The alteration zone appeared as a strong resistivity low on the 900 Hz resistivity parameter. The 7,200 Hz and 56,000 Hz resistivities showed more detail in the covering sediments, and delineated a range front fault. This is typical in many areas of the south west United States, where conductive near surface sediments, which may sometimes be alkalic, attenuate the higher frequencies.

Resistivity mapping has proven successful for locating diatremes in diamond exploration. Weathering products from relatively soft kimberlite pipes produce a resistivity contrast with the unaltered host rock. In many cases weathered kimberlite pipes were associated with thick conductive layers that contrasted with overlying or adjacent relatively thin layers of lake bottom sediments or overburden.

Areas of widespread conductivity are commonly encountered during surveys. These conductive zones may reflect alteration zones, shallow-dipping sulphide or graphite-rich units, saline ground water, or conductive overburden. In such areas, EM amplitude changes can be generated by decreases of only 5 m in survey altitude, as well as by increases in conductivity. The typical flight record in conductive areas is characterized by in-phase and quadrature channels that are continuously active. Local EM peaks reflect either increases in conductivity of the earth or decreases in survey altitude. For such conductive areas, apparent resistivity profiles and contour maps are necessary for the correct interpretation of the airborne data. The advantage of the resistivity parameter is that anomalies caused by altitude changes are virtually eliminated, so the resistivity data reflect only those anomalies caused by conductivity changes. The resistivity analysis also helps the interpreter to differentiate between conductive bedrock and conductive overburden. For example, discrete conductors will generally appear as narrow lows on the contour map and broad conductors (e.g., overburden) will appear as wide lows.

The apparent resistivity is calculated using the pseudo-layer (or buried) half-space model defined by Fraser (1978)[5]. This model consists of a resistive layer overlying a conductive half-space. The depth channels give the apparent depth below surface of the conductive material. The apparent depth is simply the apparent thickness of the overlying resistive layer. The apparent depth (or thickness) parameter will be positive when the upper layer is more resistive than the underlying material, in which case the apparent depth may be quite close to the true depth.

The apparent depth will be negative when the upper layer is more conductive than the underlying material, and will be zero when a homogeneous half-space exists. The apparent depth parameter must be interpreted cautiously because it will contain any errors that might exist in the measured altitude of the EM bird (e.g., as caused by a dense tree cover). The inputs to the resistivity algorithm are the in-phase and quadrature components of the coplanar coil-pair. The outputs are the apparent resistivity of the conductive half-space (the

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[5] Resistivity mapping with an airborne multicoil electromagnetic system: Geophysics, v. 43, p.144-172

source) and the sensor-source distance. The flying height is not an input variable, and the output resistivity and sensor-source distance are independent of the flying height when the conductivity of the measured material is sufficient to yield significant in-phase as well as quadrature responses. The apparent depth, discussed above, is simply the sensor-source distance minus the measured altitude or flying height. Consequently, errors in the measured altitude will affect the apparent depth parameter but not the apparent resistivity parameter.

The apparent depth parameter is a useful indicator of simple layering in areas lacking a heavy tree cover. Depth information has been used for permafrost mapping, where positive apparent depths were used as a measure of permafrost thickness. However, little quantitative use has been made of negative apparent depths because the absolute value of the negative depth is not a measure of the thickness of the conductive upper layer and, therefore, is not meaningful physically. Qualitatively, a negative apparent depth estimate usually shows that the EM anomaly is caused by conductive overburden. Consequently, the apparent depth channel can be of significant help in distinguishing between overburden and bedrock conductors.

Interpretation in Conductive Environments

Environments having low background resistivities (e.g., below 30 ohm-m for a 900 Hz system) yield very large responses from the conductive ground. This usually prohibits the recognition of discrete bedrock conductors. However, Fugro data processing techniques produce three parameters that contribute significantly to the recognition of bedrock conductors in conductive environments. These are the in-phase and quadrature difference channels (DIFI and DIFQ, which are available only on systems with “common” frequencies on orthogonal coil pairs), and the resistivity and depth channels (RES and DEP) for each coplanar frequency.

The EM difference channels (DIFI and DIFQ) eliminate most of the responses from conductive ground, leaving responses from bedrock conductors, cultural features (e.g., telephone lines, fences, etc.) and edge effects. Edge effects often occur near the perimeter of broad conductive zones. This can be a source of geologic noise. While edge effects yield anomalies on the EM difference channels, they do not produce resistivity anomalies. Consequently, the resistivity channel aids in eliminating anomalies due to edge effects. On the other hand, resistivity anomalies will coincide with the most highly conductive sections of conductive ground, and this is another source of geologic noise. The recognition of a bedrock conductor in a conductive environment therefore is based on the anomalous responses of the two difference channels (DIFI and DIFQ) and the resistivity channels (RES). The most favourable situation is where anomalies coincide on all channels.

The DEP channels, which give the apparent depth to the conductive material, also help to determine whether a conductive response arises from surficial material or from a conductive zone in the bedrock. When these channels ride above the zero level on the depth profiles (i.e., depth is negative), it implies that the EM and resistivity profiles are responding primarily to a conductive upper layer, i.e., conductive overburden. If the DEP channels are below the zero level, it indicates that a resistive upper layer exists, and this usually implies the existence of a bedrock conductor. If the low frequency DEP channel is below the zero level and the high frequency DEP is above, this suggests that a bedrock conductor occurs beneath conductive cover.

Reduction of Geologic Noise

Geologic noise refers to unwanted geophysical responses. For purposes of airborne EM surveying, geologic noise refers to EM responses caused by conductive overburden and magnetic permeability. It was mentioned previously that the EM difference channels (i.e., channel DIFI for in-phase and DIFQ for quadrature) tend to eliminate the response of conductive overburden.

Magnetite produces a form of geological noise on the in-phase channels. Rocks containing less than 1% magnetite can yield negative in-phase anomalies caused by magnetic permeability. When magnetite is widely distributed throughout a survey area, the in-phase EM channels may continuously rise and fall, reflecting variations in the magnetite percentage, flying height, and overburden thickness. This can lead to difficulties in recognizing deeply buried bedrock conductors, particularly if conductive overburden also exists. However, the response of broadly distributed magnetite generally vanishes on the in-phase difference channel DIFI. This feature can be a significant aid in the recognition of conductors that occur in rocks containing accessory magnetite.

EM Magnetite Mapping

The information content of HEM data consists of a combination of conductive eddy current responses and magnetic permeability responses. The secondary field resulting from conductive eddy current flow is frequency-dependent and consists of both in-phase and quadrature components, which are positive in sign. On the other hand, the secondary field resulting from magnetic permeability is independent of frequency and consists of only an in-phase component which is negative in sign. When magnetic permeability manifests itself by decreasing the measured amount of positive in-phase, its presence may be difficult to recognize. However, when it manifests itself by yielding a negative in-phase anomaly (e.g., in the absence of eddy current flow), its presence is assured. In this latter case, the negative component can be used to estimate the percent magnetite content.

A magnetite mapping technique, based on the low frequency coplanar data, can be complementary to magnetometer mapping in certain cases. Compared to magnetometry, it is far less sensitive but is more able to resolve closely spaced magnetite zones, as well as providing an estimate of the amount of magnetite in the rock. The method is sensitive to 1/4% magnetite by weight when the EM sensor is at a height of 30 m above a magnetitic half-space. It can individually resolve steep dipping narrow magnetite-rich bands which are separated by 60 m. Unlike magnetometry, the EM magnetite method is unaffected by remanent magnetism or magnetic latitude.

The EM magnetite mapping technique provides estimates of magnetite content which are usually correct within a factor of 2 when the magnetite is fairly uniformly distributed. EM magnetite maps can be generated when magnetic permeability is evident as negative in-phase responses on the data profiles.

Like magnetometry, the EM magnetite method maps only bedrock features, provided that the overburden is characterized by a general lack of magnetite. This contrasts with resistivity mapping which portrays the combined effect of bedrock and overburden.

The Susceptibility Effect

When the host rock is conductive, the positive conductivity response will usually dominate the secondary field, and the susceptibility effect[6] will appear as a reduction in the in-phase, rather than as a negative value. The in-phase response will be lower than would be predicted by a model using zero susceptibility. At higher frequencies the in-phase conductivity response also gets larger, so a negative magnetite effect observed on the low frequency might not be observable on the higher frequencies, over the same body. The susceptibility effect is most obvious over discrete magnetite-rich zones, but also occurs over uniform geology such as a homogeneous half-space.

High magnetic susceptibility will affect the calculated apparent resistivity, if only conductivity is considered. Standard apparent resistivity algorithms use a homogeneous half-space model, with zero susceptibility. For these algorithms, the reduced in-phase response will, in most cases, make the apparent resistivity higher than it should be. It is important to note that there is nothing wrong with the data, nor is there anything wrong with the processing algorithms. The apparent difference results from the fact that the simple geological model used in processing does not match the complex geology.

Measuring and Correcting the Magnetite Effect

Theoretically, it is possible to calculate (forward model) the combined effect of electrical conductivity and magnetic susceptibility on an EM response in all environments. The difficulty lies, however, in separating out the susceptibility effect from other geological effects when deriving resistivity and susceptibility from EM data.

Over a homogeneous half-space, there is a precise relationship between in-phase, quadrature, and altitude. These are often resolved as phase angle, amplitude, and altitude. Within a reasonable range, any two of these three parameters can be used to calculate the half space resistivity. If the rock has a positive magnetic susceptibility, the in-phase component will be reduced and this departure can be recognized by comparison to the other parameters.

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[6] Magnetic susceptibility and permeability are two measures of the same physical property. Permeability is generally given as relative permeability, μ_r, which is the permeability of the substance divided by the permeability of free space ($4\ \pi \times 10^{-7}$). Magnetic susceptibility *k* is related to permeability by $k=\mu^r-1$. Susceptibility is a unitless measurement, and is usually reported in units of 10^{-6}. The typical range of susceptibilities is –1 for quartz, 130 for pyrite, and up to 5×10^5 for magnetite, in 10^{-6} units (Telford et al, 1986).

The algorithm used to calculate apparent susceptibility and apparent resistivity from HEM data, uses a homogeneous half-space geological model. Non half-space geology, such as horizontal layers or dipping sources, can also distort the perfect half-space relationship of the three data parameters. While it may be possible to use more complex models to calculate both rock parameters, this procedure becomes very complex and time-consuming. For basic HEM data processing, it is most practical to stick to the simplest geological model.

Magnetite reversals (reversed in-phase anomalies) have been used for many years to calculate an “FeO” or magnetite response from HEM data (Fraser, 1981). However, this technique could only be applied to data where the in-phase was observed to be negative, which happens when susceptibility is high and conductivity is low.

Applying Susceptibility Corrections

Resistivity calculations done with susceptibility correction may change the apparent resistivity. High-susceptibility conductors, that were previously masked by the susceptibility effect in standard resistivity algorithms, may become evident. In this case the susceptibility corrected apparent resistivity is a better measure of the actual resistivity of the earth. However, other geological variations, such as a deep resistive layer, can also reduce the in-phase by the same amount. In this case, susceptibility correction would not be the best method. Different geological models can apply in different areas of the same data set. The effects of susceptibility, and other effects that can create a similar response, must be considered when selecting the resistivity algorithm.

Susceptibility from EM vs Magnetic Field Data

The response of the EM system to magnetite may not match that from a magnetometer survey. First, HEM-derived susceptibility is a rock property measurement, like resistivity. Magnetic data show the total magnetic field, a measure of the potential field, not the rock property. Secondly, the shape of an anomaly depends on the shape and direction of the source magnetic field. The electromagnetic field of HEM is much different in shape from the earth’s magnetic field. Total field magnetic anomalies are different at different magnetic latitudes; HEM susceptibility anomalies have the same shape regardless of their location on the earth.

In far northern latitudes, where the magnetic field is nearly vertical, the total magnetic field measurement over a thin vertical dike is very similar in shape to the anomaly from the HEM-derived susceptibility (a sharp peak over the body). The same vertical dike at the magnetic equator would yield a negative magnetic anomaly, but the HEM susceptibility anomaly would show a positive susceptibility peak.

Effects of Permeability and Dielectric Permittivity

Resistivity algorithms that assume free-space magnetic permeability and dielectric permittivity, do not yield reliable values in highly magnetic or highly resistive areas. Both magnetic polarization and displacement currents cause a decrease in the in-phase component, often resulting in negative values that yield erroneously high apparent resistivities. The effects of magnetite occur at all frequencies, but are most evident at the lowest frequency. Conversely, the negative effects of dielectric permittivity are most evident at the higher frequencies, in resistive areas.

The table below shows the effects of varying permittivity over a resistive (10,000 ohm-m) half space, at frequencies of 56,000 Hz (DIGHEM^V) and 102,000 Hz (RESOLVE).

Apparent Resistivity Calculations
Effects of Permittivity on In-phase/Quadrature/Resistivity

Freq (Hz)	Coil	Sep (m)	Thres (ppm)	Alt (m)	In Phase	Quad Phase	App Res	App Depth (m)	Permittivity
56,000	CP	6.3	0.1	30	7.3	35.3	10118	-1.0	1 Air
56,000	CP	6.3	0.1	30	3.6	36.6	19838	-13.2	5 Quartz
56,000	CP	6.3	0.1	30	-1.1	38.3	81832	-25.7	10 Epidote
56,000	CP	6.3	0.1	30	-10.4	42.3	76620	-25.8	20 Granite
56,000	CP	6.3	0.1	30	-19.7	46.9	71550	-26.0	30 Diabase
56,000	CP	6.3	0.1	30	-28.7	52.0	66787	-26.1	40 Gabbro
102,000	CP	7.86	0.1	30	32.5	117.2	9409	-0.3	1 Air
102,000	CP	7.86	0.1	30	11.7	127.2	25956	-16.8	5 Quartz
102,000	CP	7.86	0.1	30	-14.0	141.6	97064	-26.5	10 Epidote
102,000	CP	7.86	0.1	30	-62.9	176.0	83995	-26.8	20 Granite
102,000	CP	7.86	0.1	30	-107.5	215.8	73320	-27.0	30 Diabase
102,000	CP	7.86	0.1	30	-147.1	259.2	64875	-27.2	40 Gabbro

Methods have been developed (Huang and Fraser, 2000, 2001) to correct apparent resistivities for the effects of permittivity and permeability. The corrected resistivities yield more credible values than if the effects of permittivity and permeability are disregarded.

Recognition of Culture

Cultural responses include all EM anomalies caused by man-made metallic objects. Such anomalies may be caused by inductive coupling or current gathering. The concern of the interpreter is to recognize when an EM response is due to culture. Points of consideration used by the interpreter, when coaxial and coplanar coil-pairs are operated at a common frequency, are as follows:

1. Channels CXPL and CPPL monitor 60 Hz radiation. An anomaly on these channels shows that the conductor is radiating power. Such an indication is normally a guarantee that the conductor is cultural. However, care must be taken to ensure that the conductor is not a geologic body that strikes across a power line, carrying leakage currents.

2. A flight that crosses a "line" (e.g., fence, telephone line, etc.) yields a centre-peaked coaxial anomaly and an m-shaped coplanar anomaly.[7] When the flight crosses the cultural line at a high angle of intersection, the amplitude ratio of coaxial/coplanar response is 2. Such an EM anomaly can only be caused by a line. The geologic body that yields anomalies most closely resembling a line is the vertically dipping thin dike. Such a body, however, yields an amplitude ratio of 1 rather than 2. Consequently, an m-shaped coplanar anomaly with a CXI/CPI amplitude ratio of 2 is virtually a guarantee that the source is a cultural line.

3. A flight that crosses a sphere or horizontal disk yields centre-peaked coaxial and coplanar anomalies with a CXI/CPI amplitude ratio (i.e., coaxial/coplanar) of 1/8. In the absence of geologic bodies of this geometry, the most likely conductor is a metal roof or small fenced yard.[8] Anomalies of this type are virtually certain to be cultural if they occur in an area of culture.

4. A flight that crosses a horizontal rectangular body or wide ribbon yields an m-shaped coaxial anomaly and a centre-peaked coplanar anomaly. In the absence of geologic bodies of this geometry, the most likely conductor is a large fenced area.[5] Anomalies of this type are virtually certain to be cultural if they occur in an area of culture.

5. EM anomalies that coincide with culture, as seen on the camera film or video display, are usually caused by culture. However, care is taken with such coincidences because a geologic conductor could occur beneath a fence, for example. In this example, the fence would be expected to yield an m-shaped coplanar anomaly as in case #2 above. If, instead, a centre-peaked coplanar anomaly occurred, there would be concern that a thick geologic conductor coincided with the cultural line.

6. The above description of anomaly shapes is valid when the culture is not conductively coupled to the environment. In this case, the anomalies arise from inductive coupling to the EM transmitter. However, when the environment is quite conductive (e.g., less than 100 ohm-m at 900 Hz), the cultural conductor may be conductively coupled to the environment. In this latter case, the anomaly shapes tend to be governed by current gathering. Current gathering can completely distort

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[7] See Figure C-1 presented earlier.

[8] It is a characteristic of EM that geometrically similar anomalies are obtained from: (1) a planar conductor, and (2) a wire which forms a loop having dimensions identical to the perimeter of the equivalent planar conductor.

the anomaly shapes, thereby complicating the identification of cultural anomalies. In such circumstances, the interpreter can only rely on the radiation channels and on the camera film or video records.

Magnetic Responses

The measured total magnetic field provides information on the magnetic properties of the earth materials in the survey area. The information can be used to locate magnetic bodies of direct interest for exploration, and for structural and lithological mapping.

The total magnetic field response reflects the abundance of magnetic material in the source. Magnetite is the most common magnetic mineral. Other minerals such as ilmenite, pyrrhotite, franklinite, chromite, hematite, arsenopyrite, limonite and pyrite are also magnetic, but to a lesser extent than magnetite on average.

In some geological environments, an EM anomaly with magnetic correlation has a greater likelihood of being produced by sulphides than one which is non-magnetic. However, sulphide ore bodies may be non-magnetic (e.g., the Kidd Creek deposit near Timmins, Canada) as well as magnetic (e.g., the Mattabi deposit near Sturgeon Lake, Canada).

Iron ore deposits will be anomalously magnetic in comparison to surrounding rock due to the concentration of iron minerals such as magnetite, ilmenite and hematite.

Changes in magnetic susceptibility often allow rock units to be differentiated based on the total field magnetic response. Geophysical classifications may differ from geological classifications if various magnetite levels exist within one general geological classification. Geometric considerations of the source such as shape, dip and depth, inclination of the earth's field and remanent magnetization will complicate such an analysis.

In general, mafic lithologies contain more magnetite and are therefore more magnetic than many sediments which tend to be weakly magnetic. Metamorphism and alteration can also increase or decrease the magnetization of a rock unit.

Textural differences on a total field magnetic contour, colour or shadow map due to the frequency of activity of the magnetic parameter resulting from inhomogeneities in the distribution of magnetite within the rock, may define certain lithologies. For example, near surface volcanics may display highly complex contour patterns with little line-to-line correlation.

Rock units may be differentiated based on the plan shapes of their total field magnetic responses. Mafic intrusive plugs can appear as isolated "bulls-eye" anomalies. Granitic intrusives appear as sub-circular zones, and may have contrasting rings due to contact metamorphism. Generally, granitic terrain will lack a pronounced strike direction, although granite gneiss may display strike.

Linear north-south units are theoretically not well-defined on total field magnetic maps in equatorial regions due to the low inclination of the earth's magnetic field. However, most stratigraphic units will have variations in composition along strike that will cause the units to appear as a series of alternating magnetic highs and lows.

Faults and shear zones may be characterized by alteration that causes destruction of magnetite (e.g., weathering) that produces a contrast with surrounding rock. Structural breaks may be filled by magnetite-rich, fracture filling material as is the case with diabase dikes, or by non-magnetic felsic material.

Faulting can also be identified by patterns in the magnetic total field contours or colours. Faults and dikes tend to appear as lineaments and often have strike lengths of several kilometres. Offsets in narrow, magnetic, stratigraphic trends also delineate structure. Sharp contrasts in magnetic lithologies may arise due to large displacements along strike-slip or dip-slip faults.

APPENDIX D

DATA ARCHIVE DESCRIPTION

APPENDIX D

ARCHIVE DESCRIPTION

Reference: CCD02298
Volume Label: "Zymo"
Archive Date: 2005-February-22

This archive contains FINAL DATA ARCHIVES of an airborne geophysical survey conducted by FUGRO AIRBORNE SURVEYS CORP. on behalf of NDT Ventures Ltd. in British Columbia, Canada during December, 2004

Job # 04097

******* Disc 1 of 1 *******

This archive comprises 10 files contained in 3 subdirectories, where:

LINEDATA\

```
Zymo.xyz     - final Geosoft ASCII data archive
Zymo.txt     - Geosoft data archive description file
anZymo.xyz   - Geosoft ASCII anomaly data archive
```

GRIDS\ all grids in Geosoft .grd format

```
res56ka_zymo.grd    - apparent resistivity 56K Hz (ohm*m)
res7200a_zymo.grd   - apparent resistivity 7200 Hz (ohm*m)
res900a_zymo.grd    - apparent resistivity 900 Hz (ohm*m)
tfmaga_zymo.grd     - total magnetic field (nT)
cvga_zymo.grd       - calculated vertical gradient (nT)
dema_zymo.grd       - digital elevation model (m)
```

REPORT\ report in Adobe Acrobat pdf format v1.3

R04097FEB.pdf

All EM data in the archive is presented in the standard normalization convention for the coplanar coils. The ratio of coplanar to coaxial amplitudes for the same frequency is 4:1 over a layered earth.

Resistivity is calculated using a proprietary pseudo-layer half-space algorithm.

The coordinate system for all grids and XYZ files is projected as follows

Datum	NAD83
Spheroid	GRS80
Projection	UTM Zone 9N
Central meridian	-129

```
False easting                        500000
False northing                       0
Scale factor                         0.9996
Northern parallel                    N/A
Base parallel                        N/A
WGS84 to local conversion method     Molodensky
Delta X shift                        +0
Delta Y shift                        -0
Delta Z shift                        -0
```

If you have any problems with this archive please contact

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Geosoft XYZ ARCHIVE SUMMARY

JOB TITLE:

JOB # :04097
TYPE OF SURVEY :FUGRO EM, MAGNETICS, RESISTIVITY
AREA :Zymo Property, British Columbia
CLIENT :NDT Ventures Ltd.
****
*****
SURVEY DATA FORMAT:
NUMBER OF DATA FIELDS : 33

#	CHANNAME	TIME	UNITS	/ DESCRIPTION
1	x	0.1	m	UTME-NAD83 Canada Mean Zone 9
2	y	0.1	m	UTMN-NAD83 Canada Mean Zone 9
3	fid	1.0		fiducial
4	altbird	0.1	m	Bird to surface distance
5	z	0.1	m	Height above mean sea level
6	dtm	0.1	m	Digital elevation model
7	mag	0.1	nT	final total magnetic field
8	cpi900	0.1	ppm	inphase - coplanar 870 Hz
9	cpq900	0.1	ppm	quadrature - coplanar 870 Hz
10	cxi1000	0.1	ppm	inphase - coaxial 1112 Hz
11	cxq1000	0.1	ppm	quadrature - coaxial 1112 Hz
12	cxi5500	0.1	ppm	inphase - coaxial 5650 Hz
13	cxq5500	0.1	ppm	quadrature - coaxial 5650 Hz
14	cpi7200	0.1	ppm	inphase - coplanar 7222 Hz
15	cpq7200	0.1	ppm	quadrature - coplanar 7222 Hz
16	cpi56k	0.1	ppm	inphase - coplanar 55390 Hz
17	cpq56k	0.1	ppm	quadrature - coplanar 55390 Hz
18	res56k	0.1	ohm*m	apparent resistivity 56 Hz
19	dp56k	0.1	m	apparent depth 56K Hz
20	res7200	0.1	ohm*m	apparent resistivity 7200 Hz
21	dp7200	0.1	m	apparent depth 7200 Hz
22	res5500	0.1	ohm*m	apparent resistivity 5500 Hz
23	dp5500	0.1	m	apparent depth 5500 Hz
24	res1000	0.1	ohm*m	apparent resistivity 1000 Hz
25	dp1000	0.1	m	apparent depth 1000 Hz
26	res900	0.1	ohm*m	apparent resistivity 900 Hz
27	dp900	0.1	m	apparent depth 900 Hz
28	difi	0.1		difference channel based on inphase
29	difq	0.1		difference channel based on quadrature
30	cppl	0.1		coplanar powerline monitor
31	cpsp	0.1		coplanar spherics monitor
32	cxpl	0.1		coaxial powerline monitor
33	cxsp	0.1		coaxial spherics monitor

****
*****
ISSUE DATE :February 22, 2005
FOR WHOM :NDT Ventures Ltd.
BY WHOM : FUGRO AIRBORNE SURVEYS CORP
2270 ARGENTIA ROAD, UNIT 2
MISSISSAUGA, ONTARIO,
CANADA L5N 6A6
TEL. (905) 812-0212
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APPENDIX E

EM ANOMALY LIST

EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 10011			FLIGHT 16										
A	5111.9	S	559901	6076325	2.6	13.5	0.4	15.7	37.6	127.5	0.3	0	0
B	5077.8	S	560235	6076715	11.9	21.9	0.5	19.5	75.0	127.9	1.3	11	0
C	5048.4	D	560560	6077075	7.6	9.8	1.9	15.4	45.8	83.7	1.6	0	0
D	5002.8	D	561008	6077638	4.2	10.0	0.8	6.9	19.7	46.7	0.7	0	0
E	4981.5	D	561284	6077961	29.5	23.2	46.9	60.1	160.6	199.1	4.3	17	0
F	4974.6	D	561377	6078049	24.5	61.8	46.9	50.2	185.2	219.2	1.3	0	0
G	4968.0	D	561456	6078142	28.5	28.6	20.6	51.5	192.4	189.4	3.2	4	0
H	4959.5	B?	561564	6078270	12.4	26.7	12.7	47.7	143.8	147.9	1.1	8	0
I	4941.5	S?	561744	6078494	16.9	18.7	12.5	15.2	54.2	128.1	2.4	20	0
J	4931.3	B?	561882	6078666	33.5	101.4	4.4	56.6	181.2	482.7	1.2	0	0
K	4887.9	S?	562443	6079330	6.6	16.4	2.2	20.8	69.6	118.8	0.8	0	0
LINE 10022			FLIGHT 16										
A	5772.6	S?	559941	6076189	3.8	19.1	4.6	11.9	33.7	106.9	0.4	3	0
B	5748.0	E	560191	6076520	7.8	20.5	3.9	18.8	74.4	129.8	0.8	12	37
C	5745.4	S?	560215	6076554	6.8	8.5	2.4	18.8	74.4	129.8	1.6	25	39
D	5737.7	S	560286	6076651	5.2	4.1	1.6	11.6	65.2	82.0	2.4	48	0
E	5707.7	D	560641	6077028	5.4	10.8	1.2	14.2	54.6	81.7	0.9	12	0
F	5670.6	D	561077	6077559	6.7	19.8	1.0	6.8	19.3	54.2	0.7	0	0
G	5651.7	D	561327	6077872	128.7	70.8	44.5	89.8	248.2	154.0	11.0	3	0
H	5639.9	D	561474	6078023	13.7	16.2	1.4	12.4	53.9	12.7	2.1	14	0
I	5633.0	B?	561573	6078125	24.9	14.4	13.6	47.2	181.1	130.5	6.0	12	0
J	5611.2	B?	561846	6078464	16.0	22.5	9.5	17.8	71.4	47.2	1.8	0	0
K	5606.3	B?	561930	6078558	8.1	27.3	9.5	10.9	33.7	90.0	0.7	0	0
L	5601.6	B?	562011	6078653	5.5	18.7	1.6	10.9	33.7	90.0	0.6	3	0
M	5589.8	S	562176	6078868	14.4	20.7	0.4	13.4	61.4	137.8	1.7	10	0
N	5545.4	S	562678	6079432	5.1	14.8	2.9	20.6	68.1	104.2	0.7	1	0
LINE 10030			FLIGHT 18										
A	7731.1	S?	559996	6076117	4.9	24.2	7.0	16.5	24.3	133.2	0.4	0	0
B	7709.3	S?	560148	6076268	0.8	6.2	5.9	2.0	3.9	12.1	---	---	0
C	7689.3	S?	560338	6076504	13.9	28.9	5.8	35.2	168.7	176.1	1.2	11	0
D	7668.4	S	560560	6076784	8.7	23.1	0.8	15.3	52.6	96.3	0.9	15	34
E	7599.0	D	561162	6077486	5.8	19.8	2.2	6.4	15.0	73.9	0.6	0	0
F	7571.4	D	561431	6077830	58.4	34.6	19.4	63.0	212.8	121.7	7.7	1	0
G	7561.5	D	561553	6077969	12.2	15.3	15.0	9.1	58.5	45.3	1.9	1	0
H	7556.2	B	561625	6078060	8.6	2.5	16.1	22.7	71.9	49.0	11.0	30	0

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EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 10030			FLIGHT 18										
I	7534.4	H	561920	6078412	17.3	19.9	17.2	45.7	168.9	133.8	2.3	2	0
J	7529.3	B?	562002	6078516	24.4	33.9	16.8	45.7	168.9	148.1	2.1	0	0
K	7515.9	S?	562213	6078751	22.2	64.9	0.5	20.5	45.8	213.2	1.1	0	0
L	7489.5	S?	562561	6079170	4.1	16.3	3.4	8.5	19.6	54.9	0.5	12	53
LINE 10040			FLIGHT 18										
A	7024.1	B?	560345	6076420	37.4	81.7	4.5	64.3	266.5	374.0	1.6	0	85
B	6943.5	D	561230	6077429	8.5	16.9	0.4	4.4	14.0	49.9	1.1	1	0
C	6923.1	D	561461	6077724	52.6	45.8	53.5	84.2	277.3	174.8	4.7	3	0
D	6915.7	B	561547	6077823	4.4	5.6	53.5	84.2	277.3	72.1	1.3	38	0
E	6909.2	D	561631	6077919	22.1	20.2	0.0	21.9	80.1	156.8	3.3	9	0
F	6903.8	D	561714	6077997	26.0	24.4	25.4	56.0	222.3	156.8	3.4	1	0
G	6895.0	B	561817	6078106	15.3	27.8	19.0	53.9	150.3	157.2	1.4	16	0
H	6876.4	B	562018	6078378	15.5	28.9	15.9	53.7	191.5	165.6	1.4	0	0
I	6872.0	B?	562067	6078432	17.0	28.5	15.9	53.7	191.5	207.5	1.6	0	0
J	6851.6	D	562281	6078679	8.9	22.9	1.9	5.7	12.9	77.0	0.9	5	0
K	6835.5	S	562512	6078960	7.6	18.1	3.5	19.5	87.3	107.5	0.9	0	0
L	6810.3	S	562859	6079376	6.3	12.9	3.8	30.5	109.5	160.3	1.0	28	0
LINE 10050			FLIGHT 18										
A	6113.0	S?	560080	6075907	2.9	8.5	2.9	9.4	25.9	59.4	---	---	0
B	6142.1	E	560361	6076233	23.8	50.1	4.1	45.9	172.3	304.8	1.4	6	36
C	6149.5	B?	560464	6076353	15.7	9.9	8.6	62.1	265.9	277.9	4.6	34	33
D	6152.5	B?	560506	6076407	16.8	35.5	8.6	62.1	265.9	277.9	1.3	0	62
E	6226.7	D	561294	6077371	4.5	8.9	1.2	1.1	4.7	6.0	---	---	30
F	6244.1	D	561571	6077694	17.8	29.5	6.1	32.0	113.4	160.3	1.6	0	0
G	6246.1	D	561605	6077729	17.7	28.5	6.1	32.0	113.4	160.3	1.7	3	0
H	6254.8	D	561738	6077885	40.8	61.9	20.8	87.7	337.7	355.8	2.3	0	0
I	6257.3	D	561772	6077928	66.2	102.2	24.3	87.7	337.7	355.8	2.7	0	0
J	6259.2	B	561798	6077960	39.4	66.0	24.3	87.7	337.7	355.8	2.1	0	0
K	6277.0	B	562039	6078238	13.7	28.7	9.8	44.4	154.0	227.6	1.2	0	0
L	6292.6	B	562192	6078445	14.5	38.1	9.8	68.4	242.1	353.7	1.0	0	0
M	6312.6	D	562361	6078643	10.7	14.7	3.5	12.6	47.8	42.4	1.6	26	23
N	6337.9	B?	562596	6078892	33.2	64.9	2.7	52.4	164.4	364.0	1.7	1	0
LINE 10060			FLIGHT 18										
A	6049.5	S?	560118	6075803	7.3	21.4	3.8	19.8	53.3	121.2	0.7	0	0
B	6017.6	E	560421	6076155	21.4	35.1	2.0	36.4	155.6	209.9	1.7	5	55

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EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 10060		FLIGHT 18											
C	6006.7	H	560587	6076345	20.5	40.8	6.9	71.9	286.4	310.9	1.4	9	0
D	5936.7	D	561393	6077324	11.5	32.6	2.3	15.4	37.4	109.9	0.9	6	23
E	5907.1	D	561682	6077675	13.5	32.8	4.1	11.9	28.4	90.0	1.1	0	0
F	5889.2	B	561847	6077854	9.4	12.1	6.5	23.6	69.7	94.0	1.7	9	0
G	5872.2	B	562018	6078060	35.8	53.1	13.1	56.3	214.0	193.0	2.3	0	0
H	5857.0	B	562157	6078221	42.0	51.4	25.6	70.3	237.7	217.2	2.9	13	0
I	5841.2	B	562329	6078463	36.1	99.8	5.4	122.6	408.8	745.3	1.3	0	0
J	5827.5	E	562486	6078616	19.4	26.7	9.3	47.2	170.8	192.4	2.0	6	0
K	5799.8	B?	562697	6078859	28.1	48.5	5.0	34.3	130.8	188.4	1.8	0	0
LINE 10070		FLIGHT 18											
A	4593.4	D	560216	6075733	4.0	8.8	1.5	15.7	32.6	84.8	0.8	16	0
B	4641.7	H	560681	6076326	8.2	19.0	7.9	54.3	205.8	172.9	0.9	5	0
C	4724.4	S	561487	6077273	2.2	10.0	2.2	9.3	26.5	54.8	0.4	0	0
D	4746.3	D	561782	6077607	11.4	18.5	4.6	15.4	51.4	83.6	1.4	5	0
E	4768.6	S?	562093	6077997	13.5	13.2	8.3	29.0	120.0	154.3	2.6	6	0
F	4777.0	D	562223	6078153	47.5	55.0	36.6	50.1	160.0	67.4	3.2	0	0
G	4791.8	H	562481	6078425	31.3	47.9	18.7	107.3	407.9	511.6	2.1	0	0
H	4796.3	B?	562542	6078508	29.1	35.9	18.7	107.3	407.9	511.6	2.6	4	0
I	4814.6	B?	562774	6078803	9.8	21.8	0.3	19.7	88.5	168.0	1.0	9	0
J	4825.5	S?	562902	6078961	28.9	45.1	10.2	61.2	218.4	221.2	2.0	2	0
K	4834.1	E	562983	6079049	10.5	15.4	7.0	13.4	23.9	79.1	---	---	0
L	4858.9	H	563194	6079310	5.9	21.0	0.8	20.5	52.6	139.7	0.6	8	0
LINE 10080		FLIGHT 18											
A	4537.6	H	560230	6075604	4.2	8.4	2.9	18.3	53.5	72.7	0.8	28	0
B	4498.9	H	560596	6076053	22.7	36.3	5.1	53.8	223.2	230.4	1.8	0	69
C	4487.4	H	560774	6076243	10.4	16.6	9.5	38.3	126.2	86.2	1.4	20	0
D	4406.6	S?	561581	6077232	4.6	18.5	1.3	13.8	27.0	92.5	0.5	14	0
E	4380.5	D	561858	6077543	19.7	30.1	2.7	16.5	71.1	92.3	1.8	2	0
F	4356.6	H	562125	6077837	7.1	16.5	3.3	24.8	101.1	145.2	0.9	10	0
G	4345.1	B	562239	6077990	18.6	45.5	1.9	17.8	83.6	127.7	1.2	4	0
H	4331.3	D	562338	6078139	68.8	44.5	96.5	122.0	394.2	192.3	7.3	0	0
I	4318.1	B?	562527	6078345	19.9	22.4	9.1	20.2	94.2	135.8	2.5	7	0
J	4299.5	S?	562792	6078652	54.1	104.0	12.2	93.1	368.5	455.7	2.0	0	0
K	4276.6	S?	563032	6078984	10.5	24.6	9.5	38.2	130.2	146.1	1.0	3	0
L	4272.8	E	563080	6079053	21.2	25.1	9.5	38.0	134.0	129.0	2.4	1	0

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EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 10090			FLIGHT 18										
A	3941.5	S?	560352	6075603	5.2	22.3	1.7	19.6	40.8	129.4	0.5	6	12
B	3970.5	S	560596	6075916	10.4	18.4	3.6	37.2	185.3	141.6	1.3	17	0
C	3985.7	H	560838	6076204	12.1	14.8	9.2	41.0	128.8	93.7	2.0	20	36
D	4087.7	E	561877	6077422	15.6	40.7	1.8	38.4	136.0	240.2	1.1	0	0
E	4091.3	D	561919	6077470	22.9	50.3	1.8	38.4	136.0	240.2	1.4	0	0
F	4104.9	B?	562039	6077624	5.8	8.9	4.2	14.5	64.6	0.0	1.2	14	60
G	4120.0	S	562226	6077832	6.8	18.5	0.2	13.1	45.4	100.6	0.8	0	36
H	4145.3	S?	562583	6078247	15.7	29.1	18.3	37.0	153.5	179.6	1.4	0	0
I	4163.7	H	562870	6078609	12.2	17.6	8.7	70.8	265.1	302.5	1.6	11	0
J	4188.4	H	563314	6079115	12.9	27.8	10.1	51.7	169.3	203.4	1.2	3	0
LINE 10100			FLIGHT 18										
A	3842.6	S?	560629	6075790	6.5	8.1	3.7	39.3	176.7	147.5	1.6	37	0
B	3825.7	H	560889	6076088	2.7	0.5	7.5	7.5	42.8	3.7	---	---	0
C	3749.3	E	561682	6077008	10.6	29.8	0.7	33.5	114.2	201.5	0.9	8	24
D	3743.4	D	561752	6077096	5.3	15.0	7.4	33.5	114.2	201.5	0.7	5	0
E	3736.9	D	561827	6077189	9.7	46.0	6.1	31.0	68.1	238.9	0.6	0	0
F	3724.6	S?	561978	6077375	7.4	32.7	9.1	21.7	65.5	176.5	0.5	0	0
G	3705.1	S	562231	6077693	6.7	31.4	2.7	26.5	79.3	177.7	0.5	0	0
H	3685.3	S?	562450	6077934	5.4	15.1	2.5	13.8	39.3	100.1	0.7	9	0
I	3655.5	H	562793	6078373	10.2	10.3	14.9	37.1	128.5	80.5	2.3	15	0
J	3621.9	H	563259	6078908	11.0	26.4	4.0	36.3	131.6	169.4	1.0	0	0
K	3597.1	S?	563503	6079217	10.6	23.8	2.2	26.1	88.3	129.8	1.0	12	0
LINE 10110			FLIGHT 18										
A	3143.1	S?	560578	6075564	8.0	15.0	0.4	26.0	60.0	197.5	1.1	33	0
B	3163.5	H	560681	6075714	7.1	17.1	6.1	49.2	222.5	159.9	0.9	20	24
C	3179.5	H	560973	6076025	0.0	0.0	11.2	17.2	57.6	0.0	---	---	29
D	3201.4	D	561277	6076363	4.0	11.8	0.3	8.5	28.0	58.6	0.6	24	0
E	3250.3	S?	561545	6076727	4.1	15.7	1.5	13.3	32.3	91.0	0.5	19	28
F	3282.1	H	561845	6077090	5.2	18.5	1.0	25.0	66.6	163.6	0.6	14	0
G	3345.4	B?	562773	6078195	30.4	29.1	11.4	40.7	142.9	121.4	3.5	0	16
H	3349.0	H	562830	6078265	14.3	23.8	11.4	40.7	142.9	119.0	1.5	1	16
I	3366.8	S	563148	6078615	14.7	12.8	3.6	38.6	161.2	273.1	3.1	19	0
J	3381.2	S	563405	6078917	16.5	36.3	2.9	27.7	104.8	145.4	1.2	5	11

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Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 10120			FLIGHT 18										
A	3029.5	S?	560831	6075681	24.2	14.1	9.8	41.6	199.3	141.0	5.9	20	46
B	3018.7	H	560982	6075879	22.9	3.6	11.2	9.1	39.2	53.4	36.4	29	0
C	2955.7	D	561676	6076730	5.2	13.1	2.1	0.4	0.0	7.6	0.8	20	123
D	2944.8	D	561775	6076842	6.6	16.0	5.3	16.7	54.3	73.8	0.8	6	0
E	2909.2	B?	562141	6077274	3.9	41.2	16.3	27.2	67.4	231.8	0.2	0	0
F	2898.9	B?	562223	6077371	4.1	38.4	12.5	34.6	66.6	310.5	0.2	1	0
G	2894.7	S?	562274	6077420	4.9	30.7	12.5	34.6	66.6	310.5	0.4	0	16
H	2849.7	S	562654	6077874	4.3	19.6	0.0	20.6	51.2	152.3	0.4	0	0
I	2822.4	H	562934	6078204	49.1	84.4	20.1	98.4	334.3	379.1	2.2	0	0
J	2804.1	S?	563169	6078513	21.1	77.0	8.9	66.1	259.2	407.4	0.9	0	0
K	2783.9	E	563455	6078831	16.3	4.8	0.1	4.5	79.4	44.5	13.1	25	0
L	2776.6	S	563528	6078919	9.1	18.0	3.7	21.5	83.9	149.0	1.1	19	0
M	2762.3	E	563666	6079095	17.4	21.8	1.9	30.5	137.5	119.6	2.1	16	0
N	2756.2	S?	563740	6079176	3.5	4.2	6.0	30.5	137.5	119.6	1.3	48	0
LINE 10130			FLIGHT 18										
A	2324.0	E	560655	6075363	4.1	13.7	0.7	7.3	12.1	57.5	0.6	17	0
B	2346.0	B	560829	6075544	39.4	86.4	7.8	66.4	260.9	438.0	1.7	2	57
C	2359.7	D	560928	6075661	26.0	43.3	15.4	43.0	239.8	202.6	1.8	13	0
D	2381.6	H	561166	6075979	21.9	25.1	16.0	50.2	175.2	123.0	2.5	18	32
E	2448.5	S	561648	6076534	3.1	7.2	0.5	10.0	24.5	71.8	0.7	12	0
F	2500.0	H	561927	6076870	1.1	6.3	2.3	10.7	31.3	63.2	---	---	0
G	2532.5	D	562167	6077186	17.5	18.6	66.1	13.5	74.8	96.5	2.6	21	0
H	2553.0	B?	562360	6077370	8.2	32.7	3.2	29.3	94.7	196.8	0.6	0	0
I	2564.5	D	562426	6077472	7.9	40.0	1.1	33.7	82.9	256.8	0.5	1	11
J	2575.7	E	562496	6077558	6.5	26.9	8.3	34.1	79.0	265.0	0.5	0	0
K	2594.3	B?	562710	6077761	5.4	30.7	0.0	16.6	9.3	167.4	0.4	0	381
L	2605.0	S?	562840	6077920	9.5	21.9	56.2	8.8	47.6	52.7	1.0	0	0
M	2619.8	H	563057	6078213	40.5	63.3	26.3	93.7	319.9	311.3	2.3	0	27
N	2634.8	E	563301	6078493	20.2	40.1	1.3	55.7	24.9	252.2	1.4	0	22
O	2652.9	S	563557	6078804	23.7	49.4	2.8	28.7	92.0	210.8	1.5	0	0
P	2674.7	S?	563821	6079111	22.0	45.8	5.2	48.8	194.6	229.7	1.4	7	0
Q	2681.2	S?	563884	6079202	14.0	23.1	10.3	54.4	202.6	205.9	1.5	11	0
LINE 10140			FLIGHT 18										
A	2053.6	E	560938	6075498	34.1	33.8	15.5	55.1	236.2	152.6	3.5	6	98
B	2047.2	H	561066	6075638	4.1	7.9	16.6	55.1	236.2	152.6	0.9	22	0

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EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 10140			FLIGHT 18										
C	1991.7	B?	561631	6076327	3.5	5.9	1.5	2.1	3.3	26.4	---	---	0
D	1981.8	S	561726	6076444	5.2	10.8	0.7	12.6	30.1	99.7	0.9	0	0
E	1948.4	S?	561997	6076805	3.2	24.7	0.6	19.2	43.4	133.9	0.3	0	0
F	1902.1	S?	562470	6077343	12.3	42.9	2.2	55.3	174.7	397.3	0.8	0	17
G	1877.5	S?	562730	6077650	8.2	8.7	53.7	6.5	49.6	76.7	2.0	26	0
H	1866.9	B?	562842	6077795	11.8	14.0	16.6	7.7	1.8	96.6	2.0	16	0
I	1847.5	D	563022	6078004	47.1	53.1	25.1	95.0	308.9	304.0	3.3	0	0
J	1843.5	B?	563086	6078075	19.4	31.5	25.1	95.0	308.9	304.0	1.7	5	0
K	1838.2	H	563162	6078173	9.3	15.1	24.5	99.3	346.4	302.0	1.3	19	54
L	1831.9	B?	563248	6078281	41.8	57.9	24.8	99.3	346.4	361.7	2.6	0	0
M	1825.3	E	563349	6078388	14.0	38.7	2.9	41.6	52.5	236.2	1.0	0	20
N	1796.7	B?	563602	6078695	13.2	25.1	1.9	16.6	47.9	137.1	1.3	0	0
O	1784.6	S?	563675	6078772	6.0	14.1	1.1	17.4	51.2	136.9	0.8	25	13
P	1740.5	H	563991	6079146	15.6	25.5	10.5	41.8	154.6	145.7	1.6	15	0
LINE 10150			FLIGHT 18										
A	1332.8	S	560866	6075286	1.8	8.4	8.3	10.5	17.5	94.1	0.3	9	14
B	1350.9	B?	560977	6075424	29.1	51.1	9.9	35.3	134.8	234.0	1.8	11	89
C	1369.4	H	561094	6075563	11.5	6.1	18.2	55.8	223.3	126.8	5.2	33	0
D	1373.7	B	561142	6075631	11.9	12.1	18.2	55.8	194.1	68.4	2.4	3	0
E	1441.3	S	561771	6076366	3.1	11.8	0.3	7.9	17.5	76.1	0.4	0	0
F	1489.8	S	562110	6076807	6.4	16.3	0.8	15.5	43.7	104.8	0.8	2	24
G	1522.0	B?	562444	6077197	10.3	20.9	2.1	26.6	111.0	143.0	---	---	30
H	1531.9	D	562532	6077258	9.8	31.8	4.7	17.0	90.9	61.4	0.8	0	0
I	1545.8	D	562649	6077427	9.2	25.7	4.2	12.2	44.1	47.4	0.8	0	0
J	1562.2	S?	562884	6077691	7.9	18.7	3.0	10.5	8.6	116.4	0.9	4	435
K	1580.6	H	563192	6078036	17.6	24.1	36.2	70.0	235.6	196.1	1.9	0	0
L	1598.5	B?	563403	6078316	13.2	48.2	0.1	21.6	66.1	134.5	0.8	0	11
M	1622.9	D	563665	6078621	21.5	42.2	2.6	18.5	60.6	144.0	1.5	0	0
N	1652.5	S?	563990	6079005	26.6	51.8	8.5	65.8	244.0	342.4	1.6	0	0
O	1671.3	H	564271	6079356	7.2	13.2	4.9	12.7	42.3	71.1	1.1	31	0
LINE 10160			FLIGHT 18										
A	1209.7	S?	560967	6075245	2.8	21.9	2.0	12.6	20.3	113.1	0.2	3	0
B	1196.2	S?	560996	6075281	1.1	22.2	4.2	9.8	13.2	105.2	0.1	9	19
C	1183.7	E	561103	6075408	34.0	19.5	9.5	78.2	297.7	132.3	6.7	13	0
D	1178.0	H	561175	6075493	19.6	17.6	22.8	78.2	297.7	132.3	3.2	25	0
E	1088.9	S	562164	6076682	5.5	16.7	1.3	16.7	47.3	113.2	0.7	5	31

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EM Anomaly List

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LINE 10160			FLIGHT 18										
F	1062.0	E	562529	6077107	11.5	17.5	5.2	20.2	113.2	81.8	1.5	6	0
G	1053.1	S?	562645	6077264	11.5	47.9	3.4	49.9	182.1	297.6	0.7	0	0
H	991.1	H	563200	6077922	37.8	44.6	34.0	109.4	378.6	487.0	3.0	4	0
I	964.5	S?	563481	6078230	4.2	15.7	4.0	20.5	41.5	152.6	0.5	5	17
J	931.0	D	563736	6078548	15.4	24.1	1.3	7.6	39.8	57.6	1.6	0	0
K	922.0	B?	563793	6078613	7.7	8.2	0.1	7.9	38.6	72.4	---	---	0
L	861.2	E	564037	6078923	26.1	31.7	6.7	42.3	156.3	201.8	2.5	0	0
M	850.8	H	564189	6079093	13.4	26.7	12.4	42.9	153.6	120.1	1.2	0	0
LINE 10170			FLIGHT 17										
A	9309.9	B?	560974	6075112	0.8	9.8	0.4	8.0	8.6	63.5	---	---	62
B	9336.9	D	561184	6075360	27.0	26.9	9.1	46.5	202.5	209.0	3.2	0	0
C	9350.6	H	561335	6075544	15.3	9.2	14.0	44.0	141.5	62.5	4.8	30	0
D	9448.4	D	562243	6076621	14.6	41.2	2.2	21.6	73.2	150.4	1.0	0	0
LINE 10175			FLIGHT 17										
A	9063.0	B?	562229	6076637	11.3	28.5	1.2	21.3	70.7	133.7	1.0	0	0
B	9016.6	D	562777	6077267	13.0	51.4	2.0	39.9	120.3	256.8	0.7	0	0
C	8968.5	E	563176	6077760	5.9	19.0	16.1	29.6	116.2	122.7	---	---	0
D	8960.2	H	563299	6077921	18.2	26.7	35.1	67.9	238.5	203.9	1.8	2	0
E	8945.0	S	563563	6078184	5.8	31.9	0.1	28.6	57.5	227.4	0.4	0	13
F	8918.1	D	563851	6078501	12.5	16.2	0.0	4.8	14.6	44.5	1.8	0	0
G	8879.0	S?	564121	6078874	10.7	15.4	9.9	38.6	146.4	167.2	1.6	7	0
H	8865.3	S?	564324	6079104	6.8	13.9	8.3	22.4	78.8	88.2	1.0	1	0
LINE 10180			FLIGHT 17										
A	8480.0	E	561251	6075292	18.0	39.5	2.9	37.7	158.7	200.2	1.3	8	11
B	8489.2	D	561320	6075362	20.2	17.3	12.5	50.8	219.7	152.5	3.4	6	0
C	8492.8	D	561351	6075404	17.0	34.9	12.4	50.8	219.7	152.5	1.3	7	0
D	8573.3	S?	562142	6076347	1.7	9.9	0.5	6.8	15.7	49.8	---	---	0
E	8590.3	D	562331	6076563	10.3	31.2	1.1	17.4	40.7	113.6	0.8	0	0
F	8601.9	S?	562489	6076760	6.3	11.5	2.5	10.2	36.7	47.6	1.0	23	128
G	8626.2	H	562756	6077091	1.3	4.7	2.6	14.8	50.6	49.6	---	---	0
H	8666.0	S?	563386	6077799	10.8	14.0	5.6	29.4	104.5	114.8	1.8	0	0
I	8678.4	E	563480	6077955	10.9	13.3	4.2	25.5	93.5	87.6	1.9	11	0
J	8695.3	D	563620	6078123	5.9	26.0	2.6	8.7	16.4	104.9	0.5	0	0
K	8708.0	D	563734	6078225	2.0	22.5	0.6	9.9	13.5	73.1	0.2	0	0
L	8730.4	D	563954	6078467	21.2	44.9	2.0	36.7	104.4	265.3	1.4	3	0

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LINE 10180			FLIGHT 17										
M	8734.1	B?	563991	6078506	6.3	44.9	2.9	36.7	104.4	265.3	0.3	0	0
N	8760.2	S?	564217	6078794	10.4	19.6	7.0	39.1	164.0	195.5	1.2	12	0
O	8791.4	S?	564709	6079389	20.1	50.8	6.5	48.4	159.0	253.6	1.2	0	0
LINE 10190			FLIGHT 17										
A	8375.5	S	561044	6074861	1.4	13.2	0.5	7.0	8.2	54.8	---	---	0
B	8306.8	E	561356	6075246	35.8	39.5	8.7	83.5	337.6	324.1	3.1	0	0
C	8301.2	B	561428	6075320	19.3	43.2	14.0	83.6	337.6	324.1	1.3	8	0
D	8293.3	H	561528	6075430	7.5	7.9	6.8	18.1	57.3	39.2	---	---	0
E	8236.0	S?	562131	6076199	1.0	5.4	0.0	2.5	6.7	19.4	---	---	0
F	8209.2	D	562505	6076625	8.3	17.0	2.6	8.2	28.0	62.8	1.0	4	0
G	8189.8	S?	562792	6076961	10.2	24.7	6.2	26.4	89.1	148.2	1.0	0	0
H	8177.3	S?	562965	6077157	2.0	14.5	5.1	8.8	15.5	43.9	0.2	0	36
I	8167.2	S?	563088	6077288	4.6	23.5	1.7	9.6	36.3	75.6	0.4	0	0
J	8151.4	S	563240	6077467	4.1	24.4	2.2	15.1	37.6	120.1	0.3	0	0
K	8132.5	S?	563418	6077667	9.8	33.5	3.4	30.2	87.7	221.9	0.7	0	0
L	8127.5	S?	563462	6077729	10.2	23.4	3.3	30.2	87.7	221.9	1.0	0	0
M	8063.0	D	564026	6078432	13.2	18.5	0.7	8.6	32.4	61.1	1.7	0	0
N	8023.4	D	564523	6079020	14.4	19.2	7.9	25.9	84.4	102.3	1.9	7	0
LINE 10200			FLIGHT 17										
A	7343.9	S	561099	6074795	1.3	6.1	0.3	8.9	5.9	71.5	---	---	0
B	7391.7	E	561417	6075151	15.1	30.2	2.9	26.9	87.2	181.3	1.3	16	0
C	7406.4	S?	561463	6075237	4.9	13.4	3.3	24.3	119.8	107.7	0.7	12	0
D	7512.6	S?	562545	6076524	2.9	13.9	1.1	10.6	25.5	73.2	0.4	15	0
E	7597.4	S	563580	6077724	9.0	16.1	2.1	21.7	85.5	108.0	1.2	0	0
F	7615.6	S?	563744	6077945	8.0	22.4	3.2	12.2	27.9	95.9	0.8	0	0
G	7666.7	B?	564125	6078389	12.7	25.8	1.2	23.1	83.9	131.6	1.2	0	0
H	7680.3	S	564270	6078563	14.3	40.0	4.5	29.5	96.3	202.4	1.0	5	0
I	7690.7	H	564404	6078720	10.1	24.8	8.3	26.4	111.7	103.3	1.0	3	0
J	7708.2	H	564730	6079084	17.0	27.8	8.0	41.0	144.2	192.0	1.6	1	0
K	7726.8	S	565006	6079467	13.3	25.0	5.9	27.3	92.7	141.4	1.3	10	0
LINE 10210			FLIGHT 17										
A	7061.1	S	561659	6075319	7.4	10.4	4.7	31.8	127.4	65.5	1.4	15	0
B	6961.5	S?	562863	6076719	10.5	13.4	4.5	9.6	33.6	41.3	1.8	6	0
C	6932.5	H	563234	6077149	3.1	17.6	3.4	28.8	85.1	192.6	0.3	0	0
D	6909.0	H	563531	6077561	3.8	17.0	2.8	17.7	64.9	101.3	0.4	0	0

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LINE 10210			FLIGHT 17										
E	6828.6	B?	564201	6078329	25.5	43.5	0.3	29.8	110.6	210.1	1.8	0	0
F	6814.5	S	564386	6078536	7.4	15.7	4.4	13.1	55.9	70.7	1.0	24	0
G	6785.9	S	564760	6078996	8.3	12.4	7.5	25.2	95.6	111.3	1.4	9	0
H	6756.9	S	565200	6079507	23.0	48.7	4.2	33.2	112.4	173.3	1.4	0	0
LINE 10220			FLIGHT 17										
A	6272.2	E	561589	6075069	13.3	16.5	3.9	30.7	144.8	139.4	2.0	23	0
B	6279.2	D	561645	6075140	10.1	2.0	4.7	24.1	114.1	85.8	---	---	0
C	6288.2	S	561755	6075258	12.1	29.5	4.5	45.7	180.3	209.7	1.0	10	22
D	6394.5	D	562932	6076657	40.5	25.0	25.9	52.5	150.6	106.1	6.5	0	0
E	6429.3	H	563372	6077185	13.0	16.2	1.8	29.7	116.3	174.5	2.0	11	0
F	6454.8	B?	563779	6077636	16.6	35.4	1.5	20.8	74.9	107.5	1.3	10	0
G	6468.4	B?	563902	6077819	5.5	13.1	1.3	7.7	19.7	38.6	0.8	8	0
H	6516.4	B?	564298	6078296	11.4	38.4	2.2	41.8	128.3	316.1	0.8	2	0
I	6549.2	S?	564886	6078970	12.7	16.2	8.5	25.3	88.3	89.2	1.9	0	0
J	6575.1	S	565301	6079494	23.1	66.1	10.5	113.0	372.2	605.8	1.1	0	0
LINE 10230			FLIGHT 17										
A	6138.2	E	561665	6074988	17.0	16.5	2.9	24.5	123.6	90.3	2.8	0	0
B	6127.2	S	561845	6075193	4.0	9.1	3.6	17.7	71.6	45.2	0.8	26	12
C	6025.6	D	563003	6076606	28.2	18.3	37.5	58.2	153.0	39.3	5.4	0	0
D	5971.9	S?	563646	6077317	8.0	31.7	0.2	24.5	79.8	174.8	0.6	0	0
E	5955.3	S?	563754	6077502	6.2	15.4	3.7	25.5	86.0	122.4	0.8	0	0
F	5891.2	B?	564387	6078243	18.6	23.3	3.6	23.3	94.8	119.8	2.2	13	0
G	5856.5	S?	564892	6078843	24.8	48.0	9.4	58.3	202.4	300.0	1.6	0	0
H	5832.2	S	565323	6079353	10.5	20.5	7.0	41.1	148.5	185.0	1.2	7	0
LINE 10240			FLIGHT 17										
A	5414.9	S	561923	6075140	11.2	21.6	3.9	38.2	167.4	139.4	1.2	18	16
B	5434.6	S?	562192	6075452	5.9	10.9	2.3	11.5	43.9	100.4	1.0	31	0
C	5465.1	S?	562397	6075712	3.2	7.2	0.5	6.1	15.9	43.8	---	---	0
D	5552.9	D	563097	6076550	33.6	21.0	18.0	35.3	119.2	94.2	6.0	0	0
E	5564.0	S?	563252	6076726	6.7	12.4	12.8	10.6	19.3	62.9	1.0	19	0
F	5576.7	S	563387	6076861	3.0	17.0	3.5	14.4	44.8	107.9	0.3	0	11
G	5621.0	B?	563906	6077513	8.7	16.1	2.1	36.4	131.5	199.4	1.2	6	44
H	5661.0	S	564270	6077950	2.4	8.7	0.8	7.1	10.4	63.6	0.4	2	0
I	5683.6	S?	564502	6078207	15.4	22.6	5.5	35.1	140.9	173.2	1.7	8	0
J	5725.4	H	565149	6078987	29.7	47.6	8.0	48.5	165.6	237.2	2.0	0	0

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Zymo Property, BC

EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 10240			FLIGHT 17										
K	5741.2	H	565371	6079256	8.6	32.4	9.4	67.6	223.4	333.5	0.6	0	0
LINE 10250			FLIGHT 17										
A	5131.1	S	562038	6075111	14.0	30.1	3.7	44.6	194.6	210.7	1.2	12	16
B	5112.3	S	562276	6075381	6.6	13.8	0.6	6.8	19.9	56.8	1.0	12	0
C	5033.8	B?	563110	6076401	8.9	21.8	20.4	42.6	149.8	129.6	0.9	1	0
D	5030.4	D	563160	6076458	37.8	21.0	30.7	49.4	151.9	129.6	7.2	0	0
E	4971.6	B?	563928	6077376	19.0	56.6	7.6	62.9	215.7	342.9	1.0	0	0
F	4953.3	E	564164	6077662	5.4	10.4	1.9	14.0	42.5	74.0	---	---	0
G	4927.1	S	564362	6077894	1.4	11.2	0.4	11.6	22.0	93.8	0.2	0	0
H	4898.1	S?	564576	6078146	8.7	4.1	4.3	21.4	103.1	90.7	5.5	52	0
I	4857.3	H	565007	6078676	3.2	5.5	4.3	25.6	102.1	106.8	0.9	39	0
J	4837.2	H	565312	6079046	10.0	21.1	3.5	23.7	84.1	107.8	1.1	0	10
LINE 10260			FLIGHT 17										
A	4423.5	S?	562078	6075006	4.6	12.5	1.9	17.9	87.1	64.6	0.7	19	13
B	4531.4	E	563106	6076280	9.6	17.0	6.2	12.8	29.3	74.6	1.2	10	145
C	4538.1	D	563231	6076421	27.6	1.2	53.8	54.2	138.7	68.0	258.6	2	0
D	4547.7	S?	563450	6076629	13.2	16.4	12.7	34.3	122.4	114.7	2.0	2	0
E	4584.9	B?	564131	6077435	14.6	21.1	4.4	21.1	91.9	89.3	1.7	0	0
F	4651.6	H	564705	6078152	8.2	19.1	6.8	28.2	114.9	104.8	0.9	4	0
G	4696.1	B	565348	6078885	9.5	39.3	5.3	36.6	128.3	182.3	0.6	0	0
H	4708.7	D	565458	6079049	9.3	28.2	1.7	18.2	61.0	96.4	0.8	0	11
I	4718.2	H	565567	6079165	10.0	17.6	5.2	29.7	103.5	128.0	1.3	0	0
LINE 10270			FLIGHT 17										
A	4259.0	S?	562300	6075117	11.4	29.2	0.4	10.0	29.9	83.7	1.0	2	0
B	4206.8	S?	562892	6075827	5.7	10.7	0.2	3.2	16.3	27.7	1.0	5	0
C	4175.1	D	563311	6076330	64.2	25.2	101.9	130.4	344.5	179.4	13.7	0	0
D	4165.1	H	563480	6076525	13.6	15.0	14.0	22.8	70.6	76.3	2.2	0	0
E	4149.6	S	563709	6076823	8.4	30.9	3.8	27.9	96.1	197.6	0.7	0	17
F	4124.0	S?	564087	6077272	12.1	37.7	8.3	47.3	177.8	206.1	0.8	0	0
G	4109.5	S?	564309	6077533	5.3	15.9	1.9	9.0	29.5	45.8	0.7	0	0
H	4075.7	E	564620	6077894	9.5	28.3	0.8	26.4	87.2	185.0	0.8	9	0
I	4054.9	S?	564793	6078091	7.0	16.9	3.0	24.3	78.2	122.0	0.9	5	0
J	4036.3	S?	564851	6078172	7.8	14.2	2.7	25.6	82.5	160.7	1.1	28	0
K	4004.4	S?	565145	6078508	6.9	15.3	3.2	14.2	54.0	72.4	0.9	1	0
L	3985.2	H	565429	6078864	8.7	10.2	3.4	21.4	77.2	130.4	1.8	16	0

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LINE 10280			FLIGHT 17										
A	3324.8	S	562392	6075069	2.2	11.8	1.2	9.4	27.3	76.0	---	---	0
B	3411.4	S?	563096	6075908	2.8	11.3	3.1	9.7	27.0	42.2	0.4	16	0
C	3437.3	D	563385	6076270	32.3	14.2	46.1	61.9	159.7	75.3	9.3	1	0
D	3443.1	B	563488	6076387	13.9	6.9	46.1	61.9	159.7	53.2	6.0	12	0
E	3454.5	H	563660	6076593	6.8	8.1	7.0	13.2	41.0	77.7	1.6	17	0
F	3477.7	S	563989	6076979	2.4	12.8	1.5	8.7	18.7	46.1	0.3	0	0
G	3490.7	S?	564214	6077234	11.9	21.5	7.3	39.4	154.4	148.4	1.3	0	0
H	3530.8	E	564688	6077817	5.0	16.6	0.7	25.1	88.2	164.8	0.6	0	0
I	3545.5	S	564828	6077985	8.3	15.9	3.6	27.3	101.7	195.9	1.1	9	0
J	3582.9	S	565387	6078649	13.7	18.7	3.2	21.7	85.7	116.7	1.8	13	0
K	3589.1	S?	565505	6078792	8.9	25.1	2.8	8.4	29.3	63.0	0.8	4	0
L	3604.0	H	565757	6079089	20.5	50.5	11.3	87.4	296.5	417.8	1.2	0	10
LINE 10290			FLIGHT 17										
A	3141.5	H	562106	6074586	4.8	9.0	4.6	9.2	27.1	21.2	0.9	29	0
B	3115.6	S	562478	6075027	1.6	14.2	0.4	8.4	15.2	68.9	0.2	0	0
C	3026.0	D	563436	6076194	35.3	23.7	23.4	56.2	174.3	118.1	5.6	0	0
D	3021.3	B	563520	6076296	21.5	15.1	23.4	56.2	174.3	89.0	4.4	0	0
E	3006.2	D	563812	6076609	7.4	22.2	7.2	0.4	27.4	68.5	0.7	0	0
F	2990.6	S	564051	6076912	3.6	7.2	6.3	14.2	41.3	73.3	0.8	18	70
G	2979.2	S?	564245	6077129	13.9	26.2	9.6	36.4	146.6	154.0	1.3	0	0
H	2959.5	S	564488	6077443	0.9	10.4	1.5	4.5	4.9	78.9	0.1	0	0
I	2883.3	S	564892	6077898	1.6	7.2	3.2	17.1	58.5	85.8	0.3	15	0
J	2862.2	S?	565015	6078040	4.5	11.0	6.4	10.8	38.5	62.8	0.7	25	0
K	2820.5	S	565449	6078589	18.6	35.6	4.2	29.7	108.5	165.9	1.4	0	0
L	2803.2	H	565741	6078920	7.4	20.7	7.0	40.4	136.5	182.4	0.8	0	0
LINE 10300			FLIGHT 17										
A	2169.8	H	562194	6074508	1.8	8.7	4.7	11.3	38.5	52.6	---	---	10
B	2310.0	D	563229	6075781	5.5	12.7	1.4	8.6	30.7	45.7	0.8	15	0
C	2336.0	B	563514	6076105	18.9	20.5	3.4	47.2	178.1	128.5	2.6	2	0
D	2342.3	D	563606	6076221	58.0	46.2	30.6	92.0	307.7	244.5	5.3	0	0
E	2377.9	S	564288	6077031	8.7	6.1	13.5	20.1	105.3	44.9	3.3	21	0
F	2390.2	E	564515	6077294	5.3	9.8	6.8	14.7	50.3	71.7	1.0	26	136
G	2424.9	S	564897	6077761	4.2	18.1	3.2	29.1	120.7	150.1	0.4	0	0
H	2457.0	S	565354	6078338	8.3	18.1	4.6	24.9	95.0	144.0	1.0	8	40
I	2476.0	S	565723	6078726	18.1	39.7	4.0	44.2	155.0	246.4	1.3	0	0

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LINE 10300			FLIGHT 17										
J	2510.5	B?	566127	6079234	7.4	17.4	3.5	13.4	49.5	54.9	0.9	13	0
LINE 10310			FLIGHT 17										
A	2040.2	H	562188	6074352	5.0	13.8	1.7	14.8	44.5	89.9	---	---	0
B	2019.2	B?	562328	6074525	6.3	9.8	6.0	15.3	44.2	49.7	---	---	0
C	1908.0	D	563660	6076146	25.8	21.7	14.4	36.3	140.7	118.7	3.8	1	0
D	1901.3	B?	563757	6076272	9.7	20.0	14.5	36.3	99.1	90.2	---	---	0
E	1868.7	B	564329	6076941	14.5	20.2	14.5	31.0	114.3	135.2	1.8	8	0
F	1854.1	S?	564561	6077206	6.0	19.2	2.3	18.4	60.8	94.5	---	---	82
G	1810.8	S	564875	6077558	13.9	24.3	0.5	46.6	171.4	307.7	1.4	5	0
H	1794.2	S	565046	6077765	9.6	33.9	3.0	35.8	126.3	228.9	0.7	10	0
I	1771.5	E	565242	6078015	4.0	12.9	3.5	9.0	39.0	58.5	0.6	19	0
J	1759.8	S?	565365	6078158	11.2	28.8	1.6	32.9	123.1	174.4	1.0	10	0
K	1739.6	S	565590	6078415	7.2	17.0	0.1	10.4	28.8	77.0	0.9	9	0
L	1721.8	S	565888	6078788	11.1	23.6	7.1	53.1	195.7	236.7	1.1	4	0
LINE 10320			FLIGHT 16										
A	7221.2	S?	562284	6074300	5.1	9.2	2.2	12.7	35.4	67.1	1.0	36	0
B	7114.7	D	563784	6076116	36.0	58.4	16.6	66.4	229.5	298.0	2.1	0	0
C	7104.2	B?	563902	6076257	9.2	4.9	10.6	26.2	76.8	59.9	---	---	0
D	7070.1	E	564323	6076755	12.0	27.4	9.2	23.5	74.9	129.1	1.1	0	37
E	7067.4	D	564354	6076796	9.2	29.5	2.6	28.4	109.3	130.4	0.8	0	47
F	7053.4	S?	564492	6076984	28.4	84.1	3.5	82.5	243.9	551.5	1.2	0	0
G	7042.0	S	564647	6077170	11.3	25.4	1.3	34.7	101.9	225.6	1.1	0	43
H	7036.8	E	564718	6077249	7.0	23.1	1.6	24.5	102.0	176.3	0.7	0	0
I	7012.0	S	564977	6077517	5.1	15.1	1.1	35.1	148.6	192.6	0.7	0	0
J	6968.7	S	565453	6078096	7.7	26.6	2.4	44.3	162.9	272.4	0.7	11	52
K	6934.0	S	565855	6078588	3.9	11.9	2.9	27.5	100.8	144.3	0.6	0	0
L	6921.6	S	566053	6078818	12.5	32.3	5.8	40.0	131.1	187.8	1.0	0	0
LINE 10330			FLIGHT 16										
A	6070.5	D	562222	6074107	6.5	14.2	1.3	13.5	38.0	79.2	0.9	5	0
B	6156.5	S?	563255	6075371	5.0	9.7	0.8	7.1	19.2	41.2	0.9	34	0
C	6218.6	D	563866	6076097	11.2	5.6	12.8	21.5	66.0	27.3	5.6	4	0
D	6221.5	B?	563922	6076167	11.4	13.2	12.8	21.5	66.0	27.3	2.0	5	10
E	6256.3	S?	564554	6076891	5.7	1.0	7.1	34.8	132.5	116.5	---	---	0
F	6269.6	B?	564762	6077122	6.2	25.3	1.2	45.6	135.8	336.0	0.5	0	0
G	6273.5	E	564809	6077180	12.1	43.5	0.9	45.6	135.8	336.0	0.7	0	0

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EM Anomaly List

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LINE 10330			FLIGHT 16										
H	6293.6	S	565029	6077486	12.4	43.1	1.4	61.7	232.7	357.4	0.8	0	0
I	6313.9	B?	565251	6077694	11.2	15.1	1.4	31.9	89.9	207.0	1.7	16	0
J	6340.1	S	565607	6078153	6.6	8.5	1.9	12.4	52.1	58.1	1.5	6	49
K	6376.3	H	566211	6078853	13.7	23.8	4.4	47.6	159.4	225.0	1.4	3	0
LINE 10340			FLIGHT 16										
A	4310.0	S	562286	6074014	3.6	6.9	1.4	15.7	48.9	87.5	0.8	19	0
B	4188.6	B?	563675	6075677	2.7	9.1	0.8	5.0	11.6	24.4	0.5	17	0
C	4162.2	D	563934	6075983	77.3	68.7	34.3	107.3	385.3	326.0	5.2	0	0
D	4154.9	D	564031	6076106	61.5	44.6	34.3	102.4	330.3	274.4	6.1	0	0
E	4106.4	H	564631	6076839	12.9	29.7	8.1	44.8	174.8	174.6	1.1	0	0
F	4100.5	E	564729	6076962	14.3	23.3	5.0	38.9	140.2	140.9	1.5	1	100
G	4078.9	S	565079	6077346	10.1	18.9	0.2	31.8	134.7	159.8	1.2	2	0
H	4071.0	S	565192	6077482	2.6	4.5	12.1	23.3	106.9	111.6	0.8	44	0
I	4039.8	B?	565613	6077988	5.8	9.0	4.8	20.2	78.5	83.1	1.2	33	0
J	4007.4	S	565954	6078428	9.3	26.3	4.1	27.8	95.4	150.7	0.8	0	0
K	4002.0	S?	566057	6078534	10.8	22.7	4.1	27.6	106.4	122.3	1.1	0	0
L	3972.7	H	566610	6079160	10.9	14.5	4.6	12.0	53.7	69.7	1.7	24	0
LINE 10350			FLIGHT 16										
A	3549.4	S?	562621	6074254	5.5	7.6	2.8	10.5	28.1	49.7	1.3	9	0
B	3627.9	S	563542	6075374	3.6	6.8	1.5	5.7	17.3	40.3	0.8	40	0
C	3675.9	D	564077	6075988	32.5	14.7	28.4	77.6	241.9	152.2	9.0	10	0
D	3678.7	D	564132	6076051	46.7	36.3	28.4	77.6	243.6	152.2	5.1	3	0
E	3717.5	E	564671	6076684	19.7	45.2	8.8	49.8	185.4	238.4	1.3	0	27
F	3722.6	H	564727	6076750	13.4	20.7	8.8	48.3	181.5	243.2	1.6	8	0
G	3756.1	S	565156	6077292	10.0	10.6	1.8	19.0	89.4	169.5	2.1	29	0
H	3763.0	D	565248	6077400	11.1	27.1	3.7	20.7	91.4	144.4	1.0	6	0
I	3776.7	B?	565402	6077571	8.2	14.2	2.4	6.7	10.7	45.5	1.2	10	0
J	3798.4	H	565635	6077887	6.5	12.9	2.5	15.9	62.7	71.4	1.0	23	0
K	3828.6	S	566113	6078434	14.5	23.5	3.5	40.9	159.1	204.7	1.5	6	0
L	3840.9	H	566251	6078610	19.4	32.0	4.6	48.1	179.5	221.8	1.7	7	0
M	3883.1	H	566862	6079319	6.6	7.8	3.2	16.9	62.6	62.6	1.7	40	0
LINE 10361			FLIGHT 16										
A	3024.9	S	562309	6073720	2.3	7.8	3.8	24.5	76.7	125.3	0.4	22	0
B	2883.9	B?	563922	6075648	10.1	14.7	9.0	24.1	72.8	101.0	1.5	24	0
C	2870.6	E	564066	6075845	22.0	30.7	10.8	74.4	279.1	291.8	2.1	2	0

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Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 10361			FLIGHT 16										
D	2864.9	D	564138	6075928	36.0	35.6	21.5	83.6	294.1	291.8	3.5	4	0
E	2859.7	D	564213	6076004	53.6	49.5	21.5	83.6	294.1	200.2	4.4	0	0
F	2830.3	S?	564589	6076430	7.3	15.1	3.5	13.2	35.8	103.0	1.0	10	0
G	2814.7	B?	564729	6076635	8.9	19.5	0.2	18.4	62.5	98.6	1.0	0	35
H	2778.6	S	565288	6077293	11.0	20.2	4.0	29.4	111.8	130.8	1.2	5	0
I	2751.2	H	565724	6077796	5.6	8.4	3.3	21.2	79.1	80.3	1.2	28	0
J	2719.3	S	566242	6078400	5.5	11.4	2.6	18.7	88.7	64.3	0.9	15	0
LINE 10370			FLIGHT 16										
A	2213.5	S	562872	6074250	2.2	9.2	2.1	10.5	29.6	80.1	0.4	12	10
B	2172.7	S	563425	6074928	4.2	13.4	0.2	8.4	25.9	61.5	0.6	5	0
C	2125.0	B?	564069	6075671	3.5	10.2	4.1	14.2	48.5	56.7	---	---	0
D	2115.1	E	564187	6075825	13.6	15.1	8.7	31.6	118.7	100.2	2.3	13	0
E	2111.3	D	564242	6075894	16.6	21.3	8.7	31.6	118.7	100.2	2.1	0	0
F	2107.0	D	564308	6075963	28.7	14.5	14.5	42.3	141.7	49.0	7.5	5	73
G	2079.1	S	564678	6076386	4.4	7.5	0.6	9.3	32.4	76.6	1.0	22	0
H	2062.5	E	564845	6076598	10.1	25.0	6.1	18.0	55.4	84.2	1.0	0	62
I	2057.8	B?	564903	6076682	21.8	45.8	0.1	51.9	198.6	314.1	1.4	0	0
J	2054.0	S?	564952	6076748	6.6	9.8	1.6	45.7	179.8	253.9	1.3	26	64
K	2021.4	S?	565478	6077334	8.4	12.8	4.0	15.7	62.1	85.1	1.4	27	0
L	1994.9	H	565822	6077765	5.2	6.7	2.1	16.4	57.4	69.4	1.4	43	0
M	1960.4	S	566203	6078232	8.2	14.9	0.2	7.0	59.3	38.3	1.1	19	0
N	1940.8	S	566471	6078554	7.0	14.1	1.5	21.3	89.5	111.4	1.0	1	124
O	1915.6	H	566924	6079088	10.0	10.1	4.7	7.4	28.2	39.3	2.2	28	0
LINE 10380			FLIGHT 16										
A	1386.6	S	563517	6074877	2.6	8.7	0.3	9.7	28.6	74.8	0.5	23	0
B	1437.1	B?	564014	6075458	3.8	12.3	3.6	15.1	38.3	86.3	0.5	17	19
C	1467.8	B?	564258	6075759	14.0	28.2	7.3	38.3	129.6	179.9	1.3	13	0
D	1473.0	D	564331	6075847	14.3	9.7	12.2	40.7	160.3	179.9	4.1	29	0
E	1477.2	D	564392	6075917	33.3	29.6	12.2	40.7	160.3	110.4	3.9	16	61
F	1501.6	S	564755	6076342	4.8	15.0	12.9	13.0	34.3	102.4	0.6	4	0
G	1517.2	E	565007	6076614	25.0	48.5	2.5	38.5	146.8	221.5	1.6	0	61
H	1529.0	S	565198	6076853	19.3	32.7	3.5	36.7	156.4	188.7	1.6	0	23
I	1547.8	S?	565440	6077176	9.0	17.6	4.7	47.6	177.3	212.6	1.1	7	0
J	1581.4	H	565889	6077693	8.9	14.3	3.1	15.7	57.6	64.7	1.3	21	0
K	1611.9	S	566384	6078296	19.6	35.3	2.9	60.7	239.7	323.7	1.5	3	0
L	1630.5	B?	566589	6078544	16.6	25.7	10.8	16.5	32.6	156.1	1.7	24	261

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EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 10380			FLIGHT 16										
M	1642.4	B?	566685	6078656	14.1	42.7	8.6	58.0	200.3	334.3	0.9	0	0
N	1659.1	B?	566877	6078877	7.2	10.1	2.3	11.2	45.9	60.4	1.4	33	0
O	1675.9	H	567129	6079167	9.8	18.7	6.5	23.1	87.2	100.9	1.2	14	0
LINE 10390			FLIGHT 16										
A	1168.2	S?	562944	6074024	3.7	14.1	1.8	18.0	62.5	91.2	0.5	18	15
B	1153.9	H	563080	6074186	10.9	11.1	9.4	31.7	120.4	92.3	2.3	15	0
C	1113.1	S	563612	6074837	1.3	8.4	2.1	7.9	22.0	74.4	0.2	7	0
D	1054.7	B?	564324	6075680	7.2	10.8	6.8	16.5	63.7	68.5	1.3	4	0
E	1045.4	D	564469	6075823	8.9	9.9	6.6	13.3	30.8	12.3	1.9	18	0
F	1036.4	B?	564563	6075962	4.9	16.1	4.9	14.5	41.4	67.6	0.6	10	51
G	988.0	S?	565198	6076700	10.6	21.8	2.2	30.6	119.1	164.0	1.1	2	0
H	964.0	S?	565437	6076994	16.6	26.8	5.2	24.6	107.1	146.3	1.6	1	0
I	949.6	H	565597	6077185	11.6	21.4	5.4	41.7	150.7	182.7	1.3	18	0
J	886.7	S	566538	6078311	19.2	33.0	3.1	26.6	97.0	186.6	1.6	10	0
K	871.2	S	566786	6078619	18.6	37.1	6.5	44.0	153.0	197.1	1.4	6	0
L	852.4	B?	567006	6078876	11.4	20.8	3.0	13.8	43.9	99.8	1.3	9	0
M	823.3	B?	567395	6079302	4.9	10.4	4.1	15.8	45.9	69.3	0.8	17	0
N	817.7	H	567446	6079370	8.5	13.0	5.4	30.8	105.3	127.9	1.4	16	0
LINE 10400			FLIGHT 15										
A	7090.6	S?	563029	6073978	7.7	16.2	9.4	20.3	89.2	55.0	1.0	15	0
B	7100.7	S	563139	6074111	10.0	10.7	15.5	56.8	195.9	140.8	2.1	14	0
C	7180.0	D	564298	6075500	3.6	6.0	3.5	9.9	28.0	43.7	---	---	0
D	7194.2	B	564532	6075771	17.9	26.7	7.0	29.1	108.4	107.2	1.8	14	0
E	7216.9	S?	564918	6076216	1.3	7.8	1.1	5.5	19.4	52.8	0.2	0	0
F	7237.2	D	565210	6076578	13.6	43.6	2.2	46.7	170.1	318.2	0.9	0	72
G	7248.4	B?	565366	6076764	5.8	18.9	2.3	19.4	68.4	127.5	0.6	0	0
H	7265.0	H	565635	6077033	11.5	21.8	6.7	49.6	182.2	216.7	1.2	1	0
I	7276.6	B?	565749	6077228	7.8	14.6	1.7	18.2	58.3	78.8	1.1	0	25
J	7336.4	B?	566604	6078244	16.7	38.5	4.4	26.3	64.9	211.0	1.2	0	174
K	7362.4	S	566954	6078684	5.6	10.9	2.8	23.6	92.4	143.9	0.9	20	28
LINE 10410			FLIGHT 15										
A	6837.5	S	563007	6073780	8.7	12.6	3.8	24.5	97.5	126.1	1.5	8	12
B	6823.2	S?	563169	6073967	8.6	11.5	14.6	43.2	147.7	83.9	1.6	28	0
C	6791.6	D	563580	6074462	12.6	22.3	4.3	18.3	68.1	71.8	1.4	20	0
D	6710.4	H	564501	6075557	6.3	9.8	2.9	26.9	87.8	157.7	1.2	28	0

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EM Anomaly List

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LINE 10410			FLIGHT 15										
E	6701.5	B?	564599	6075682	22.0	30.0	8.0	39.0	152.8	179.4	2.1	12	0
F	6656.3	S?	565256	6076456	10.7	34.2	3.6	27.0	79.4	200.7	0.8	0	68
G	6644.3	S	565390	6076619	0.7	16.1	1.3	20.9	58.3	162.0	0.1	0	0
H	6626.1	S?	565630	6076912	12.9	22.5	4.6	35.9	132.2	170.9	1.4	2	0
I	6623.5	B?	565672	6076965	17.1	25.1	4.7	35.9	132.2	170.9	1.8	0	0
J	6568.7	S	566546	6078026	17.0	21.7	4.2	9.3	34.7	66.3	2.1	0	0
K	6561.1	S	566698	6078205	9.5	21.5	1.6	11.9	41.9	60.5	1.0	0	160
L	6549.4	S?	566925	6078470	24.5	40.3	2.9	47.1	198.8	212.4	1.8	0	0
M	6545.3	S	567006	6078557	11.1	27.4	2.9	47.1	198.8	250.2	1.0	0	0
N	6519.1	H	567469	6079094	7.1	10.1	6.2	13.6	53.7	43.3	1.4	22	0
LINE 10420			FLIGHT 15										
A	6105.7	S?	563102	6073765	17.4	31.2	4.7	51.5	175.8	263.6	1.5	1	0
B	6221.3	B?	564661	6075608	12.2	21.7	6.5	23.2	94.4	95.7	1.3	18	0
C	6252.3	S	565115	6076137	6.1	14.5	1.5	14.1	59.5	84.6	0.8	2	0
D	6268.6	S?	565382	6076450	6.1	42.8	0.7	30.1	66.4	256.8	0.3	0	77
E	6327.9	S	566119	6077329	7.9	20.3	1.1	19.3	64.0	124.9	0.8	12	0
F	6353.2	S	566441	6077715	10.8	15.1	3.0	18.3	85.8	55.1	1.6	0	28
G	6370.0	S	566668	6077969	23.2	23.6	0.9	48.0	184.3	286.4	3.0	7	0
H	6383.4	S	566813	6078173	4.2	9.0	6.3	42.7	174.8	250.2	0.8	16	0
I	6387.8	E	566877	6078239	12.2	29.6	6.3	41.8	143.7	266.6	1.0	0	0
J	6438.6	H	567600	6079085	13.6	21.2	7.5	34.0	121.9	141.5	1.6	6	0
LINE 10430			FLIGHT 15										
A	6022.9	H	563092	6073557	12.7	17.8	4.9	22.7	86.1	92.5	1.7	5	0
B	6000.8	H	563366	6073889	11.7	14.7	8.1	27.8	87.6	77.5	1.9	25	0
C	5981.0	B	563653	6074220	9.9	17.0	7.5	20.7	69.3	60.0	---	---	12
D	5974.1	S?	563744	6074337	9.7	11.7	9.1	50.1	171.8	171.4	1.8	12	0
E	5900.3	D	564585	6075357	2.3	12.4	0.5	8.7	19.7	58.0	0.3	13	0
F	5889.1	D	564707	6075511	9.5	14.7	3.4	19.3	80.2	71.6	1.4	19	0
G	5844.9	S?	565233	6076131	14.0	39.8	1.6	33.4	118.3	209.6	0.9	0	0
H	5799.6	S	565811	6076792	14.8	27.0	4.1	38.5	150.1	217.9	1.4	20	0
I	5775.2	S	566180	6077253	7.0	9.6	0.8	8.0	41.6	64.9	1.4	35	0
J	5747.4	B?	566543	6077650	23.1	36.4	5.5	35.1	149.9	173.4	1.9	16	35
K	5739.6	E	566654	6077789	18.8	31.9	1.0	41.1	184.8	126.4	1.6	2	0
L	5733.5	S	566742	6077917	9.6	4.6	4.8	42.8	184.8	126.4	5.6	24	0
M	5667.7	B?	567682	6079057	10.3	24.5	4.6	41.6	139.6	197.4	1.0	2	0
N	5654.4	D	567796	6079208	10.6	16.4	4.7	24.0	68.6	122.2	1.5	12	0

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EM Anomaly List

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LINE 10440			FLIGHT 15										
A	5097.4	H	563180	6073544	11.4	15.3	2.6	36.5	139.8	170.5	1.7	28	0
B	5122.2	H	563560	6073964	6.2	11.6	6.8	26.7	95.4	87.3	1.0	34	0
C	5139.7	S	563800	6074265	20.7	25.4	15.7	69.5	255.3	220.2	2.3	17	0
D	5227.0	B	564767	6075434	13.6	29.4	2.8	17.7	57.9	118.9	1.2	12	0
E	5270.8	H	565330	6076076	6.4	14.2	2.6	22.4	85.9	112.1	0.9	6	0
F	5304.0	S?	565764	6076602	5.5	21.6	1.2	22.9	80.0	106.3	0.5	0	0
G	5312.9	D	565844	6076707	9.1	10.2	2.7	18.4	21.9	106.3	1.9	12	0
H	5323.7	D	565969	6076850	12.7	34.3	2.7	29.0	114.0	171.1	1.0	9	0
I	5335.1	B?	566111	6077021	3.7	9.8	1.1	0.0	0.0	0.0	0.6	7	0
J	5346.1	S	566264	6077175	5.6	11.7	2.6	21.9	92.7	115.6	0.9	20	0
K	5379.1	E	566718	6077731	16.0	28.1	1.7	36.4	161.8	164.2	1.5	0	11
L	5394.2	H	566901	6077970	5.7	7.3	6.4	32.5	149.2	100.0	1.5	37	0
M	5442.0	S	567471	6078638	8.3	20.5	5.1	25.6	113.5	124.5	0.9	17	0
LINE 10450			FLIGHT 15										
A	5036.7	H	563407	6073621	10.1	20.7	4.0	17.8	72.1	101.7	1.1	20	0
B	5026.2	S?	563573	6073826	7.6	9.4	5.9	27.4	107.5	82.3	1.6	15	0
C	5007.4	H	563907	6074216	6.9	6.9	13.4	45.2	145.6	65.4	2.0	31	0
D	4934.3	D	564861	6075365	6.1	12.6	2.4	3.7	19.9	36.5	0.9	11	0
E	4898.7	E	565206	6075775	10.1	26.1	0.9	31.1	98.5	212.5	0.9	0	0
F	4893.8	B?	565273	6075866	6.2	21.0	0.5	31.6	96.5	199.2	0.6	0	0
G	4853.7	S?	565833	6076516	21.0	53.3	1.2	48.4	157.3	332.8	1.2	0	0
H	4841.2	H	566013	6076766	10.1	17.6	4.4	30.5	126.7	153.6	1.3	2	0
I	4827.4	S	566260	6077064	5.2	10.6	0.3	19.8	82.9	105.0	0.9	16	0
J	4798.1	S?	566647	6077514	6.6	6.7	3.0	14.1	59.4	58.9	---	---	0
K	4775.9	S?	566812	6077714	19.4	21.4	0.4	42.9	189.6	225.5	2.5	8	21
L	4757.8	H	567030	6077972	17.1	31.1	4.2	57.3	210.0	266.8	1.5	1	0
M	4702.6	S	567884	6078975	8.9	14.7	4.4	16.7	53.5	77.9	1.3	4	0
N	4692.2	B?	568012	6079125	7.5	10.4	0.5	2.2	6.7	16.4	1.4	24	0
LINE 10460			FLIGHT 15										
A	4258.2	H	563365	6073447	12.6	17.6	1.2	14.7	62.2	78.2	1.7	0	0
B	4283.8	H	563732	6073857	15.2	14.1	4.5	17.4	71.2	24.6	2.8	26	0
C	4306.0	H	564040	6074235	12.4	12.4	13.7	55.2	174.0	113.4	2.4	27	26
D	4366.8	S	564548	6074849	4.0	11.4	0.7	11.4	32.3	95.1	0.6	26	10
E	4400.2	B?	564930	6075292	7.6	14.3	1.7	7.1	20.2	56.9	1.1	28	0
F	4434.5	S	565255	6075680	3.5	13.2	0.4	20.3	66.0	139.9	0.5	0	0

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LINE 10460			FLIGHT 15										
G	4495.6	S?	566000	6076578	6.4	10.1	3.2	15.2	81.3	76.0	1.2	21	0
H	4506.6	H	566124	6076727	14.3	27.3	3.3	32.0	130.7	165.4	1.3	10	0
I	4527.5	S	566456	6077087	7.4	13.0	2.6	21.6	82.2	114.5	1.1	22	0
J	4542.1	E	566671	6077385	14.0	20.7	3.4	26.8	110.5	122.3	1.7	12	0
K	4555.9	E	566912	6077665	10.4	37.3	0.3	23.9	68.0	179.4	0.7	0	20
L	4568.4	S	567052	6077837	10.2	19.8	2.8	36.3	155.0	153.2	1.2	18	0
M	4587.8	E	567235	6078053	9.0	20.0	4.2	19.8	72.0	101.2	1.0	13	0
N	4635.8	S	567766	6078680	5.8	10.9	4.8	17.6	91.3	87.2	1.0	10	0
LINE 10470			FLIGHT 15										
A	4075.6	H	563686	6073658	20.7	28.4	10.9	39.7	161.1	139.5	2.1	0	0
B	4054.4	H	563995	6074006	4.5	10.3	3.7	18.5	71.4	65.9	0.8	16	0
C	4035.9	B?	564216	6074292	7.3	6.0	10.3	28.7	103.7	61.6	2.6	26	55
D	3996.7	S	564691	6074852	0.9	0.1	1.0	7.1	31.2	50.8	---	---	0
E	3955.6	E	565170	6075426	1.3	16.3	0.7	5.0	7.3	54.5	0.2	6	0
F	3914.6	S?	565641	6075991	7.2	15.3	0.8	19.8	63.4	130.1	1.0	9	0
G	3884.9	S	565980	6076377	3.8	20.7	1.9	31.5	110.9	180.7	0.4	0	0
H	3871.0	H	566164	6076642	10.4	16.4	4.4	21.2	88.5	121.4	---	---	0
I	3855.9	S	566448	6076961	3.9	9.3	3.7	12.8	43.0	71.1	0.7	7	0
J	3799.9	E	567042	6077656	3.8	19.7	0.9	18.9	63.6	112.0	0.4	0	0
K	3792.1	S	567145	6077770	10.0	4.0	5.1	9.2	69.8	22.4	7.2	37	0
L	3741.8	S	567846	6078616	11.5	16.0	7.3	22.4	95.6	144.7	1.7	19	0
M	3719.0	H	568157	6078960	7.4	13.7	2.3	18.5	68.1	93.3	1.1	25	0
LINE 10480			FLIGHT 15										
A	3123.5	H	563794	6073613	8.7	10.2	8.2	20.3	77.7	71.4	1.8	0	0
B	3138.5	B?	563985	6073890	10.7	10.6	4.3	13.0	42.9	34.3	---	---	12
C	3154.0	H	564186	6074099	4.7	4.8	9.2	20.3	52.0	44.3	1.7	41	0
D	3170.1	E	564377	6074355	9.9	13.7	7.5	27.6	101.9	91.6	1.6	24	58
E	3208.7	S	564694	6074717	5.8	12.9	0.2	15.8	44.6	124.8	0.9	28	16
F	3224.1	E	564864	6074903	4.8	15.7	2.7	12.4	41.6	87.0	0.6	20	0
G	3244.0	B?	565055	6075146	4.4	15.0	0.4	15.7	37.8	105.7	0.6	22	0
H	3253.1	B?	565118	6075228	3.8	3.7	1.2	0.0	54.8	0.0	1.7	63	0
I	3258.7	D	565165	6075284	7.8	15.9	2.8	18.9	64.0	103.6	1.0	20	0
J	3286.8	S?	565437	6075612	7.3	19.6	1.4	20.0	65.1	118.2	0.8	4	0
K	3289.3	S?	565467	6075643	4.9	17.2	1.4	20.0	65.1	118.2	0.6	0	0
L	3318.8	B?	565733	6075937	6.3	9.4	1.7	13.9	52.1	85.9	1.3	12	0
M	3361.1	B?	566118	6076387	6.8	6.5	2.8	11.9	53.6	163.1	2.1	24	0

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Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 10480			FLIGHT 15										
N	3367.2	S	566181	6076462	2.3	10.2	2.7	11.9	53.6	117.4	0.4	0	0
O	3397.2	S	566530	6076915	1.7	2.7	4.0	18.8	71.6	117.3	0.8	60	0
P	3447.3	E	567138	6077639	4.5	12.5	0.7	15.7	55.6	84.5	0.7	1	0
Q	3463.0	S	567269	6077799	2.3	2.9	4.4	15.4	73.6	48.4	---	---	0
R	3517.7	E	567940	6078580	19.4	37.3	11.6	31.1	128.0	207.4	1.4	12	0
LINE 10490			FLIGHT 15										
A	2750.5	S	563794	6073505	6.5	9.2	5.8	17.1	74.5	81.8	1.4	0	0
B	2728.6	H	564180	6073926	11.3	9.7	12.9	48.1	159.5	124.5	2.8	9	0
C	2649.5	H	565210	6075166	2.9	7.3	1.5	9.5	33.0	50.2	0.6	24	0
D	2612.9	B?	565615	6075654	4.4	13.4	1.1	7.8	21.4	69.5	0.6	5	0
E	2598.8	B?	565783	6075847	11.8	28.8	1.4	25.1	77.4	151.0	1.0	0	0
F	2558.5	S	566210	6076350	7.9	25.9	3.8	25.2	100.5	184.0	0.7	0	0
G	2539.9	H	566394	6076576	7.8	8.0	6.7	22.6	69.9	64.7	2.0	18	0
H	2519.2	H	566656	6076893	5.2	13.1	5.5	22.8	67.8	78.3	0.8	2	0
I	2506.8	S	566797	6077063	4.5	8.5	1.0	11.2	41.3	64.8	0.9	32	0
J	2491.0	S	566997	6077293	2.7	11.3	1.1	8.0	25.5	56.6	0.4	12	16
K	2467.7	S	567256	6077595	5.6	11.4	2.3	11.3	47.2	54.0	0.9	14	26
L	2454.1	S	567417	6077809	6.1	17.2	0.7	23.3	78.4	120.7	0.7	5	0
M	2434.6	S	567607	6078044	10.4	19.9	2.0	11.9	56.5	71.9	1.2	5	0
N	2398.2	E	568039	6078541	13.9	25.9	11.3	21.4	97.0	130.3	1.3	0	0
LINE 10500			FLIGHT 15										
A	1939.2	H	564296	6073919	7.6	9.0	9.9	25.6	91.1	81.6	1.7	29	0
B	2051.0	B?	565406	6075245	4.6	14.0	1.0	9.3	23.4	57.4	0.6	22	0
C	2100.4	S?	565916	6075864	3.5	14.2	1.2	16.1	50.9	108.2	0.5	0	0
D	2123.0	B?	566120	6076093	5.1	8.4	1.4	1.5	4.6	0.4	1.1	14	0
E	2154.2	S?	566367	6076371	9.7	34.6	2.5	28.8	125.8	227.5	0.7	0	0
F	2177.0	H	566622	6076697	11.2	27.5	6.2	28.0	83.7	155.5	1.0	16	0
G	2198.8	S?	566830	6076972	6.2	21.6	0.8	22.0	62.0	157.4	0.6	3	0
H	2223.9	S	567106	6077279	8.4	29.0	0.3	21.0	56.7	171.4	0.7	6	0
I	2270.7	S	567475	6077720	5.0	13.5	1.7	14.9	62.3	70.8	0.7	9	0
J	2299.2	S	567807	6078109	5.6	6.3	6.5	19.8	82.8	95.3	1.7	51	0
K	2329.2	E	568152	6078528	27.5	48.3	17.3	38.1	148.8	232.7	1.8	5	0
LINE 10510			FLIGHT 15										
A	1798.7	H	564331	6073828	5.6	8.4	10.2	30.5	99.3	69.9	1.2	22	0
B	1668.2	D	566023	6075832	13.6	33.8	0.0	24.8	69.4	181.0	1.0	0	0

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LINE 10510		FLIGHT 15											
C	1662.8	E	566096	6075917	7.1	25.5	0.5	23.6	68.6	171.5	0.6	0	0
D	1629.2	S	566381	6076244	4.3	18.3	0.7	19.8	76.6	120.2	0.5	0	0
E	1611.5	H	566568	6076469	6.1	6.7	5.4	15.4	50.3	35.3	1.7	36	0
F	1598.9	E	566759	6076705	13.4	23.5	4.3	24.6	97.8	107.9	1.4	12	0
G	1552.9	S	567224	6077254	4.0	14.3	0.8	11.4	29.2	77.6	0.5	9	0
H	1540.6	S	567349	6077415	8.1	13.8	0.3	5.7	17.0	57.5	1.2	10	43
I	1523.5	S	567578	6077676	4.0	3.2	2.0	6.7	29.8	36.9	2.2	27	0
J	1498.5	S?	567799	6077948	4.0	10.6	0.1	10.9	27.6	72.7	0.7	13	0
K	1456.4	E	568263	6078494	26.8	43.6	9.5	37.6	146.3	232.8	1.9	0	0
L	1443.1	H	568431	6078691	10.2	17.1	7.2	7.1	15.2	29.6	1.3	9	0
LINE 10520		FLIGHT 15											
A	869.5	H	564138	6073471	9.4	11.0	4.4	15.2	53.3	60.5	1.9	2	0
B	900.8	H	564582	6073949	11.9	18.5	8.8	36.5	131.3	121.8	1.5	12	0
C	978.4	S	565268	6074775	3.3	8.2	1.8	10.5	35.7	64.1	0.6	1	0
D	1067.8	S?	566200	6075870	6.9	11.7	1.0	7.0	22.0	60.9	1.2	8	0
E	1107.2	S	566535	6076276	6.3	27.3	2.3	14.4	71.8	135.4	0.5	1	0
F	1122.3	B?	566711	6076482	6.8	7.8	3.5	23.4	90.5	149.0	---	---	0
G	1125.8	S?	566757	6076532	14.0	27.2	0.7	31.7	117.9	149.0	1.3	3	61
H	1167.5	D	567324	6077183	3.9	7.4	3.0	7.4	13.1	35.3	0.8	5	0
I	1182.6	B?	567403	6077344	5.1	14.1	2.4	18.9	58.4	134.4	0.7	23	48
J	1275.6	E	568413	6078519	17.0	22.6	15.6	21.9	92.9	111.8	2.0	0	0
LINE 10530		FLIGHT 15											
A	752.2	S	565118	6074425	4.1	7.4	1.0	8.3	28.0	59.9	0.9	1	0
B	700.0	H	565617	6075049	3.0	12.2	0.3	8.9	25.7	62.7	0.4	7	0
C	668.3	H	566039	6075524	8.9	21.4	0.4	9.0	49.5	40.6	0.9	4	0
D	651.5	B?	566238	6075768	2.9	11.3	1.3	13.6	42.7	95.7	0.4	8	0
E	637.6	H	566343	6075887	5.4	13.5	0.5	14.7	41.5	111.5	0.8	17	0
F	600.5	S	566618	6076216	0.7	4.4	0.7	11.1	49.1	75.2	0.2	25	0
G	584.3	B?	566795	6076432	10.5	11.4	5.9	13.7	76.4	62.5	---	---	79
H	514.9	D	567492	6077270	11.5	28.0	1.8	10.9	48.5	70.5	1.0	2	19
I	492.4	B?	567691	6077514	7.2	28.4	0.4	24.1	78.8	147.1	0.6	5	0
J	417.0	E	568499	6078469	16.3	26.0	16.8	27.1	118.3	139.6	1.6	0	0
K	404.0	H	568648	6078621	6.6	16.0	5.1	13.5	34.6	48.9	0.8	1	0
LINE 10540		FLIGHT 13											
A	4243.7	H	564639	6073748	10.2	15.6	4.7	25.5	90.6	93.5	1.5	17	0

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EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 10540			FLIGHT 13										
B	4302.0	S	565185	6074359	4.9	12.9	0.0	12.3	41.4	91.5	0.7	0	46
C	4384.5	S	565872	6075179	4.6	8.7	1.6	3.8	13.1	53.4	0.9	18	0
D	4407.4	H	566200	6075547	4.2	16.9	2.4	22.6	75.5	147.2	0.5	1	0
E	4426.8	B?	566356	6075766	6.5	9.7	0.8	11.7	33.4	78.7	1.3	22	0
F	4434.6	B?	566415	6075850	5.0	12.1	1.7	10.7	33.4	90.8	0.8	8	0
G	4458.0	S	566628	6076078	6.1	15.4	1.0	14.2	44.7	91.1	0.8	0	0
H	4464.1	B?	566702	6076152	4.4	8.7	1.9	11.6	35.2	77.0	0.9	13	0
I	4475.2	B?	566831	6076307	6.5	8.2	3.8	10.8	45.1	40.2	1.5	31	0
J	4477.0	B?	566851	6076334	12.1	13.1	3.8	10.8	45.1	40.2	2.2	13	95
K	4487.6	E	566978	6076482	4.6	19.9	7.5	19.1	64.8	122.5	0.5	6	0
L	4527.9	S?	567568	6077212	11.2	28.9	1.4	25.0	90.4	177.3	1.0	9	43
M	4584.3	S?	568114	6077848	6.0	11.8	9.9	8.4	39.5	57.0	1.0	29	0
N	4619.2	E	568616	6078465	9.0	9.2	13.3	13.7	60.9	34.0	2.1	19	0
LINE 10550			FLIGHT 13										
A	4160.9	H	564759	6073680	5.3	5.7	4.1	16.5	54.0	49.1	1.7	35	0
B	4061.7	H	565885	6075063	3.6	15.4	1.1	14.3	36.2	108.7	0.4	5	0
C	4026.9	H	566239	6075465	11.8	18.3	3.5	30.9	110.8	142.2	1.5	9	0
D	4006.8	B?	566480	6075740	3.7	15.6	0.2	5.0	27.3	49.4	0.4	5	0
E	3983.3	S?	566635	6075916	12.2	37.1	0.1	45.4	156.4	306.7	0.9	4	0
F	3964.7	S	566809	6076120	4.2	9.3	0.8	13.0	31.8	74.1	0.8	12	0
G	3901.3	B?	567641	6077143	10.0	25.2	3.6	18.3	64.3	112.7	0.9	0	30
H	3887.5	S	567802	6077325	6.3	20.7	0.6	23.3	80.1	148.9	0.6	4	0
I	3846.7	S?	568214	6077818	4.1	8.6	9.8	4.6	21.2	25.5	0.8	10	0
J	3796.5	B?	568768	6078480	12.8	10.2	15.0	10.2	47.0	47.9	3.2	33	0
LINE 10560			FLIGHT 13										
A	3196.4	H	564737	6073526	8.1	8.0	3.0	20.8	82.5	54.4	2.2	40	0
B	3208.9	H	564907	6073717	9.6	10.5	7.1	21.8	86.3	66.6	2.0	24	0
C	3257.1	S?	565311	6074205	2.4	7.4	0.9	4.5	10.6	37.2	---	---	127
D	3281.3	S	565509	6074451	5.5	13.8	1.0	16.3	49.6	110.6	0.8	1	0
E	3295.1	S	565602	6074550	2.9	10.2	1.4	5.8	16.5	36.3	0.5	19	0
F	3347.7	S	565935	6074969	7.1	17.6	1.8	13.5	35.1	93.4	0.8	6	0
G	3370.5	E	566244	6075308	24.4	31.3	7.5	58.6	232.0	247.2	2.3	0	0
H	3376.5	B?	566304	6075389	18.5	37.5	7.5	58.6	232.0	262.0	1.4	8	0
I	3383.9	E	566361	6075462	9.1	16.3	5.1	3.9	7.8	262.0	1.2	15	0
J	3394.0	B?	566452	6075578	4.5	23.6	0.3	8.3	8.7	79.0	0.4	0	0
K	3424.2	D	566697	6075851	10.4	20.3	1.6	47.4	104.6	315.8	1.2	1	0

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LINE 10560			FLIGHT 13										
L	3429.2	B?	566737	6075897	17.3	65.5	1.6	47.4	126.3	315.8	0.8	0	0
M	3445.1	B?	566877	6076056	7.2	16.1	0.2	10.0	20.0	69.5	0.9	5	0
N	3529.0	L	567728	6077090	14.3	40.4	32.4	35.2	127.4	249.3	1.0	0	284
O	3588.5	S	568303	6077789	4.1	7.9	4.0	7.7	25.8	46.3	0.9	34	0
P	3627.5	B?	568867	6078452	16.2	22.5	11.8	27.7	101.4	183.0	1.9	21	0
LINE 10570			FLIGHT 13										
A	3113.8	H	564946	6073610	10.9	11.2	4.7	25.6	94.7	59.1	2.3	23	0
B	3059.7	S	565619	6074420	3.7	7.7	0.7	8.0	27.3	52.3	0.8	24	0
C	3024.6	S	565992	6074850	5.2	18.8	1.8	10.0	29.3	82.0	0.6	8	0
D	2999.0	B?	566292	6075231	29.7	44.7	7.4	55.5	201.1	237.2	2.1	0	0
E	2979.2	S	566581	6075553	5.9	18.9	0.9	14.1	29.3	108.3	0.6	5	0
F	2954.2	B?	566797	6075810	19.3	46.3	2.3	27.9	84.6	194.2	1.2	0	15
G	2916.1	S	567234	6076325	5.5	14.1	0.6	10.2	32.2	70.2	0.8	0	0
H	2875.7	S?	567735	6076924	5.5	13.9	3.3	19.1	52.7	117.6	0.8	4	0
I	2849.1	B?	567997	6077246	9.4	29.6	0.0	37.7	125.3	251.4	0.8	13	154
J	2795.2	E	568556	6077900	7.3	18.4	2.3	19.5	72.1	121.5	0.8	15	0
K	2791.3	S	568607	6077958	1.3	2.8	9.1	19.5	72.1	121.5	0.5	52	0
L	2757.1	S?	568875	6078310	3.7	9.5	3.3	16.0	38.5	146.3	0.7	24	0
M	2747.1	B?	568934	6078381	4.6	12.0	3.9	10.5	48.1	80.7	0.7	14	25
LINE 10581			FLIGHT 13										
A	2253.0	H	564999	6073516	4.5	3.8	3.9	6.0	17.9	13.2	2.1	41	0
B	2273.2	S?	565236	6073817	7.3	11.7	6.4	18.0	58.1	67.3	1.2	32	0
C	2360.2	B?	565823	6074518	1.3	7.1	0.7	8.4	19.7	51.5	---	---	0
D	2415.7	B	566336	6075110	31.5	40.0	7.8	57.2	196.1	271.7	2.6	6	0
E	2421.8	D	566415	6075205	6.5	31.1	7.8	76.3	272.2	299.4	0.5	0	0
F	2424.4	D	566442	6075240	32.5	55.9	10.0	70.3	253.1	276.3	1.9	3	0
G	2458.8	B?	566773	6075641	4.8	8.7	2.0	16.1	64.5	76.7	1.0	26	0
H	2470.6	B?	566873	6075764	9.1	29.2	0.1	20.5	42.6	149.0	0.7	0	0
I	2482.2	S?	566981	6075886	5.2	18.2	1.0	18.5	66.3	111.9	0.6	6	0
J	2518.2	S	567323	6076301	2.9	11.8	1.3	11.4	33.1	88.7	0.4	7	0
K	2559.6	S	567768	6076842	1.3	10.7	0.7	25.9	73.0	167.8	0.2	6	0
L	2570.3	D	567918	6077019	15.6	36.8	4.6	11.5	41.1	65.9	1.1	3	0
M	2581.7	S?	568016	6077131	10.6	31.4	0.3	31.1	124.3	172.6	0.8	7	259
N	2603.8	S?	568284	6077425	3.9	13.8	1.4	10.3	32.8	40.1	0.5	17	0
O	2647.1	S	568705	6077952	9.6	24.5	7.7	24.6	95.0	146.7	0.9	3	0
P	2654.2	E	568799	6078060	10.8	20.0	5.3	18.2	72.1	99.3	1.2	13	0

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EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 10590		FLIGHT 13											
A	1131.0	H	565135	6073502	8.0	7.7	6.1	12.3	44.4	22.8	2.2	23	0
B	1149.7	B?	565340	6073732	7.5	8.2	6.1	17.5	54.3	38.9	1.9	33	0
C	1202.4	B?	565710	6074198	3.3	8.1	0.2	11.9	37.3	75.1	0.7	8	0
D	1294.4	B?	566447	6075045	18.7	15.5	5.7	55.3	204.3	213.1	3.5	18	0
E	1297.1	B?	566476	6075080	14.6	15.5	5.7	55.3	204.3	213.1	2.4	14	10
F	1318.2	B?	566651	6075335	3.1	10.5	1.4	4.6	9.7	48.3	---	---	0
G	1346.8	S	566933	6075670	5.9	11.7	1.9	12.9	50.3	82.3	0.9	15	0
H	1360.6	S?	567082	6075842	9.7	19.5	0.6	11.5	44.6	66.2	1.1	3	52
I	1421.0	S	567812	6076702	6.6	14.6	4.3	18.2	68.6	64.5	0.9	0	0
J	1439.2	S?	568042	6076987	10.3	34.5	0.3	26.9	76.2	205.3	0.7	3	154
K	1457.6	S?	568140	6077120	7.3	21.2	0.5	21.5	81.6	124.7	0.7	13	0
L	1481.4	S	568340	6077338	6.6	19.4	3.4	17.0	50.7	110.9	0.7	9	0
M	1526.5	S?	568681	6077766	3.9	12.3	0.0	14.2	42.3	75.9	0.6	0	0
N	1543.3	S	568821	6077937	8.1	7.7	9.4	14.2	71.9	78.7	2.3	39	0
O	1552.5	E	568946	6078069	10.1	21.7	2.9	15.9	70.6	100.4	1.1	18	101
LINE 10600		FLIGHT 13											
A	1060.0	B?	565210	6073457	7.4	7.8	6.6	26.7	88.4	56.2	1.9	26	0
B	951.3	B?	566480	6074976	27.1	32.0	5.3	45.7	187.6	196.6	2.6	16	0
C	817.5	S?	568018	6076795	6.9	11.9	2.4	6.2	21.9	86.1	---	---	49
D	806.0	S?	568066	6076851	10.6	29.3	0.0	23.1	67.6	161.3	0.9	13	0
E	789.6	S?	568202	6077019	6.5	15.8	2.9	11.0	38.2	77.2	0.8	1	97
F	759.1	S?	568498	6077366	9.4	10.3	0.9	16.1	60.0	83.7	2.0	26	0
G	729.9	S	568859	6077791	5.8	10.6	8.2	5.8	30.6	40.2	1.0	17	0
H	713.9	S	569043	6078032	5.4	10.8	1.0	11.5	39.2	53.0	0.9	12	0
LINE 10610		FLIGHT 12											
A	8728.1	S?	565083	6073154	10.5	15.6	4.5	23.8	80.3	80.4	1.5	0	0
B	8745.0	H	565269	6073400	3.5	3.2	8.4	11.8	27.6	18.6	1.8	45	0
C	8816.2	S?	565895	6074130	6.0	12.8	0.6	9.5	33.0	65.6	0.9	12	0
D	8894.5	B?	566595	6074953	14.7	21.8	1.8	25.5	99.2	143.9	1.7	15	0
E	8927.6	D	566934	6075359	9.5	18.6	1.5	18.2	50.6	114.3	1.1	0	0
F	8956.9	D	567261	6075735	9.3	24.1	0.0	11.2	47.8	77.3	0.9	0	32
G	8966.9	E	567352	6075858	6.3	16.0	1.2	16.2	57.2	93.8	0.8	15	0
H	9027.8	S	568134	6076769	5.1	11.7	0.4	13.0	54.9	88.7	0.8	6	46
I	9044.6	E	568347	6077028	10.9	19.7	0.6	17.7	67.4	102.2	1.3	0	52
J	9058.1	S?	568401	6077128	3.4	2.0	2.5	14.8	57.4	66.0	---	---	17

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EM Anomaly List

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LINE 10610			FLIGHT 12										
K	9112.9	S	568943	6077761	7.0	15.4	6.1	12.1	48.4	81.0	0.9	17	0
LINE 10620			FLIGHT 12										
A	8478.7	S?	565139	6073054	8.4	7.7	4.1	15.6	51.3	64.5	2.4	10	0
B	8465.0	B?	565376	6073327	4.9	2.0	7.1	17.7	57.4	16.2	---	---	0
C	8352.6	B?	566662	6074855	5.5	10.5	1.1	7.6	28.3	44.3	1.0	21	0
D	8326.0	S?	566935	6075217	2.3	5.7	1.9	8.1	37.3	46.9	---	---	0
E	8300.9	S?	567252	6075562	5.5	18.2	1.9	11.4	45.0	55.2	0.6	0	0
F	8233.9	S	568135	6076637	4.3	14.9	2.9	16.9	68.7	78.9	0.5	0	0
G	8204.3	S?	568491	6077005	12.3	17.6	2.4	16.5	62.2	79.2	1.7	0	111
H	8182.5	S	568700	6077307	2.8	9.4	2.7	16.7	48.7	114.7	0.5	22	13
I	8117.3	S	569375	6078068	0.2	13.5	6.7	10.7	11.5	94.1	---	---	0
LINE 10630			FLIGHT 12										
A	7632.0	H	565487	6073307	9.2	5.4	7.1	8.8	32.6	19.2	4.2	12	0
B	7645.7	E	565647	6073514	9.9	13.2	5.1	21.0	78.2	65.3	1.7	23	0
C	7725.1	S?	566285	6074240	4.8	5.8	2.7	9.4	34.2	27.4	---	---	0
D	7785.7	B?	566786	6074866	4.9	10.7	1.1	7.6	57.4	95.1	0.8	5	0
E	7808.2	S?	567053	6075194	6.7	20.5	1.0	20.3	46.8	132.9	0.7	4	0
F	7816.5	S?	567134	6075292	3.4	9.9	1.3	11.3	27.7	77.2	0.6	10	0
G	7827.5	S?	567261	6075412	13.2	59.1	2.1	39.6	90.9	293.8	0.6	0	0
H	7909.1	B?	568138	6076477	4.2	10.3	0.4	10.1	38.9	55.0	0.7	4	0
I	7942.7	B?	568492	6076916	8.6	19.3	3.0	10.2	47.0	63.7	1.0	11	102
J	7958.0	S?	568596	6077031	3.4	6.4	4.2	18.4	74.1	62.4	---	---	80
K	8026.0	B?	569103	6077635	11.2	16.3	13.1	18.6	76.4	137.2	1.6	28	0
LINE 10640			FLIGHT 12										
A	7526.1	E	565205	6072824	15.1	15.6	7.2	27.1	100.6	68.1	2.5	0	0
B	7504.1	H	565538	6073215	15.2	17.3	5.5	21.8	78.8	76.9	2.3	0	0
C	7427.3	H	566311	6074175	8.6	10.9	2.7	14.3	55.2	52.9	1.7	19	0
D	7385.2	B?	566785	6074719	5.9	11.0	0.9	13.2	49.7	62.3	1.0	20	0
E	7355.2	E	567128	6075108	9.5	24.1	1.7	16.2	52.1	81.3	0.9	0	0
F	7340.6	S?	567298	6075344	9.8	27.7	3.2	31.5	108.3	163.6	0.8	0	0
G	7303.7	S	567712	6075827	2.5	15.7	1.0	14.2	41.1	100.7	0.3	0	26
H	7236.5	S?	568176	6076395	5.1	13.4	1.1	13.4	49.2	79.8	0.7	0	0
I	7177.5	B?	568720	6077028	8.2	7.8	3.2	18.3	61.5	34.2	2.3	26	157
J	7117.2	D	569208	6077580	10.8	13.9	8.4	8.6	39.8	53.4	1.8	4	0

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LINE 10650			FLIGHT 12										
A	6122.9	S	565125	6072601	3.5	6.0	1.4	13.2	45.4	70.5	0.9	26	0
B	6155.0	S?	565452	6072953	8.1	11.2	7.7	35.7	124.6	100.2	1.5	29	0
C	6246.5	S?	566450	6074157	7.9	10.8	2.4	12.6	50.8	49.1	1.5	18	0
D	6270.4	S	566626	6074377	6.4	10.7	1.3	6.9	23.0	56.9	1.1	19	0
E	6294.0	B?	566893	6074703	2.6	6.9	1.3	7.9	28.5	28.5	---	---	0
F	6306.1	S	567030	6074842	6.3	11.1	1.1	9.4	33.3	60.0	1.1	22	0
G	6329.4	S?	567320	6075184	15.3	35.6	1.7	39.5	137.2	230.6	1.2	0	0
H	6332.5	S?	567373	6075245	15.6	43.7	6.0	39.5	137.2	230.6	1.0	0	0
I	6373.4	B?	567828	6075796	4.7	21.8	1.0	11.6	34.3	89.8	0.4	0	0
J	6402.2	S?	568072	6076090	5.1	9.4	3.0	7.5	27.4	49.0	1.0	17	0
K	6457.2	S?	568685	6076834	11.6	17.2	3.4	33.0	112.0	144.4	1.6	19	93
L	6476.0	H	568813	6076979	5.6	12.5	4.1	38.4	141.5	136.1	0.9	9	85
M	6482.9	E	568864	6077029	13.1	17.9	4.8	38.4	141.5	136.1	1.8	27	0
N	6537.3	B	569303	6077555	11.5	19.0	13.6	14.1	64.7	84.5	1.4	18	0
LINE 10660			FLIGHT 12										
A	5847.1	S	565422	6072770	18.5	36.8	7.7	43.6	160.9	157.6	1.4	0	0
B	5830.1	S	565645	6073020	10.2	9.1	4.9	25.8	87.8	58.3	2.6	31	0
C	5813.6	S	565843	6073268	9.2	12.6	4.2	23.9	92.5	97.5	1.6	19	0
D	5766.4	S?	566473	6074040	12.3	17.7	2.9	24.1	91.2	79.4	1.7	0	0
E	5718.7	B?	566923	6074539	3.3	6.9	0.4	9.6	19.7	59.8	0.8	30	74
F	5707.5	D	566998	6074643	5.5	8.3	1.7	5.6	24.9	36.8	1.2	18	0
G	5667.0	S?	567436	6075211	5.7	15.5	1.2	19.1	61.4	97.4	0.7	0	0
H	5560.0	B?	568672	6076675	7.3	6.8	3.5	5.2	47.3	7.7	---	---	0
I	5548.7	B?	568796	6076799	7.6	5.1	5.1	33.2	122.0	130.9	3.4	33	0
J	5542.9	B?	568854	6076869	16.9	24.5	4.1	33.2	122.0	130.9	1.8	1	143
K	5486.7	D	569371	6077497	17.9	32.6	12.4	14.9	63.5	108.5	1.5	5	0
LINE 10670			FLIGHT 12										
A	4909.8	S?	565249	6072403	7.2	18.5	1.3	18.5	62.7	88.6	0.8	0	12
B	4949.1	S?	565565	6072799	25.0	50.5	10.5	73.8	260.1	288.4	1.5	0	0
C	4966.6	S?	565730	6072987	12.6	13.2	6.9	27.4	95.4	71.0	2.3	8	0
D	5047.0	H	566626	6074051	2.9	3.4	3.1	10.9	43.7	19.0	---	---	0
E	5064.7	B?	566835	6074295	5.4	11.7	3.0	9.2	34.2	52.8	0.9	11	0
F	5100.0	S?	567141	6074657	2.7	5.3	1.7	10.9	41.6	61.1	---	---	0
G	5142.4	S	567423	6075006	11.7	42.3	1.7	29.7	84.2	193.2	0.7	0	0
H	5153.4	S?	567559	6075159	18.2	59.3	2.0	28.9	67.2	209.1	0.9	0	0

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LINE 10670			FLIGHT 12										
I	5166.6	B?	567653	6075301	4.8	16.7	2.1	6.5	25.6	46.4	0.6	3	0
J	5175.0	B?	567720	6075377	3.9	12.6	0.5	7.6	25.6	50.4	---	---	0
K	5290.0	S?	568773	6076621	5.2	14.7	1.0	15.6	49.1	92.3	0.7	21	25
L	5300.7	S?	568813	6076684	5.7	17.2	0.7	16.4	58.7	127.6	0.7	15	26
M	5316.0	S?	568945	6076825	3.8	0.5	4.1	22.6	60.8	36.5	---	---	0
N	5380.0	D	569474	6077459	13.4	21.7	64.5	11.4	129.0	72.0	1.5	20	0
O	5385.0	H	569515	6077517	11.0	3.1	65.6	11.3	129.0	72.0	---	---	0
LINE 10680			FLIGHT 12										
A	4551.0	S	565657	6072734	17.5	40.3	4.9	42.6	143.8	209.4	1.2	0	13
B	4540.7	S	565812	6072909	17.5	19.6	5.5	26.7	102.6	83.6	---	---	0
C	4438.3	S	567168	6074560	1.9	5.2	1.8	10.2	37.2	52.8	0.5	12	0
D	4397.3	E	567458	6074913	7.0	19.6	0.9	29.4	56.6	193.7	0.8	0	0
E	4392.3	S?	567526	6074995	3.0	33.1	1.4	29.4	80.4	193.7	0.2	0	0
F	4375.1	S?	567800	6075306	7.1	8.9	1.4	13.5	46.3	64.3	---	---	13
G	4252.3	S?	568990	6076725	12.2	13.0	2.4	12.8	51.2	47.5	2.3	18	0
H	4235.8	S?	569132	6076905	6.7	14.8	3.4	20.8	68.2	79.6	0.9	8	124
I	4167.3	B	569597	6077442	10.2	17.6	16.9	6.9	45.2	34.8	1.3	0	0
LINE 10690			FLIGHT 12										
A	3556.4	S?	565097	6071912	6.8	19.0	3.3	21.0	64.0	124.3	0.8	0	0
B	3581.6	B?	565270	6072143	5.2	9.0	2.1	14.0	47.0	58.3	1.0	16	0
C	3651.9	S?	565792	6072757	20.0	34.4	9.5	53.3	196.1	222.9	1.6	0	0
D	3660.6	S	565863	6072867	13.1	21.2	5.8	35.7	133.1	143.9	1.5	0	0
E	3824.2	S?	567908	6075265	7.1	11.4	1.3	13.0	50.5	58.9	1.2	13	15
F	3914.8	S	568852	6076397	4.8	11.9	0.9	8.6	25.0	49.3	0.7	0	0
G	4002.9	S?	569288	6076919	5.8	9.0	3.1	16.5	66.5	68.7	1.2	33	0
H	4088.4	B?	569699	6077420	9.4	16.8	51.9	19.4	188.0	75.5	1.2	20	0
I	4093.6	H	569753	6077482	12.4	5.9	51.9	19.4	188.0	75.5	---	---	0
LINE 10700			FLIGHT 12										
A	3394.9	S	565877	6072697	6.9	9.4	4.7	16.0	60.5	42.9	1.4	0	0
B	3262.2	S?	567908	6075148	8.6	17.7	1.6	18.0	60.6	81.1	1.1	18	33
C	3222.9	S	568318	6075603	7.6	15.1	0.3	14.3	43.9	97.1	1.0	6	0
D	3147.4	S	568928	6076343	3.0	9.3	1.3	5.7	17.3	52.4	0.5	17	0
E	3121.5	B?	569131	6076578	7.6	7.5	5.2	7.1	13.4	26.8	2.1	18	0
F	3094.7	B?	569341	6076836	9.2	14.7	3.7	17.2	63.5	65.5	1.3	8	12
G	3028.0	S?	569868	6077439	3.1	5.2	9.0	7.9	42.0	50.8	0.9	29	0

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LINE 10711			FLIGHT 12										
A	2393.9	S	565223	6071736	6.6	12.6	1.9	19.7	69.1	113.8	1.0	0	0
B	2465.0	S	565885	6072528	6.3	10.1	3.2	15.5	57.1	61.7	1.2	17	0
C	2490.0	S	566153	6072890	2.3	2.9	1.2	7.0	35.5	20.2	---	---	0
D	2582.5	S?	567449	6074423	4.1	13.2	0.9	12.8	36.5	81.4	0.6	0	0
E	2724.6	S	568995	6076260	4.8	13.0	1.8	12.8	35.0	91.0	0.7	8	11
F	2785.1	H	569404	6076752	1.2	1.9	4.6	4.8	15.4	26.5	---	---	0
LINE 10720			FLIGHT 10										
A	3527.7	S?	565953	6072497	9.5	18.9	2.3	23.6	91.9	126.0	1.1	13	0
B	3540.4	S?	566089	6072646	6.0	8.5	0.9	10.9	35.3	40.4	---	---	0
C	3710.7	S?	568143	6075103	3.4	7.3	1.9	8.0	26.2	45.9	---	---	0
D	3793.5	S	569084	6076204	4.5	12.1	2.3	11.1	27.7	70.0	0.7	8	14
E	3821.3	S?	569286	6076460	3.5	8.0	1.0	10.7	32.7	55.0	0.7	31	24
LINE 10731			FLIGHT 4										
A	9846.7	S?	565676	6071995	4.8	8.8	0.9	14.6	48.6	85.8	1.0	26	0
B	9518.7	B?	569644	6076728	0.8	0.1	3.4	13.4	40.3	35.0	---	---	0
C	9516.5	H	569666	6076754	3.8	5.2	3.4	13.4	41.3	35.0	---	---	0
D	9498.7	B?	569815	6076938	6.4	6.3	3.0	5.8	15.6	0.0	2.0	5	91
LINE 10740			FLIGHT 8										
A	3937.7	S	565685	6071841	3.4	12.4	1.3	10.7	33.5	64.2	0.5	17	0
B	3922.0	S?	565754	6071924	7.1	16.5	1.6	18.7	65.0	109.4	0.9	21	0
C	3728.0	S?	567340	6073792	3.1	8.4	0.8	6.5	22.7	42.2	0.6	4	0
D	3616.7	S?	568346	6075016	4.8	10.9	2.1	11.5	34.8	47.8	0.8	14	0
E	3466.2	S?	569292	6076143	4.2	10.8	0.8	15.7	47.0	103.1	0.7	18	35
F	3456.6	S	569319	6076177	2.1	13.9	0.8	12.8	39.2	95.7	0.3	0	0
G	3408.5	B?	569681	6076607	8.1	10.1	4.3	25.3	85.4	56.0	---	---	113
H	3399.9	H	569746	6076686	9.9	7.7	4.3	25.3	85.4	56.0	3.0	5	0
LINE 10750			FLIGHT 4										
A	8596.2	H	565708	6071718	4.9	11.6	2.3	13.5	45.6	59.9	0.8	14	0
B	8519.7	H	566523	6072699	4.7	6.9	3.6	17.0	60.1	46.0	---	---	10
C	8437.7	S	567701	6074135	2.1	3.6	3.1	8.8	34.2	42.5	---	---	0
D	8378.3	S	568317	6074807	5.0	2.8	2.1	9.9	37.4	31.1	---	---	0
E	8272.8	D	569371	6076102	4.2	12.0	1.0	10.7	42.1	76.5	0.6	11	0
F	8234.1	S?	569811	6076583	3.7	3.8	2.3	5.1	16.3	11.6	---	---	0

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LINE 10750			FLIGHT 4										
G	8226.5	B?	569873	6076672	8.7	11.5	1.9	9.5	29.7	34.7	1.6	16	0
LINE 10760			FLIGHT 4										
A	7766.2	H	565826	6071715	5.0	6.4	2.3	15.1	54.3	55.5	1.4	28	0
B	7817.1	S	566496	6072497	11.9	17.2	3.5	17.5	61.5	79.3	1.6	0	0
C	7866.9	H	567125	6073262	5.6	11.8	4.4	22.0	74.7	112.7	0.9	7	11
D	7935.3	S?	567860	6074131	3.4	3.0	4.3	10.2	45.2	13.1	1.8	45	0
E	7944.0	E	567957	6074258	2.7	8.6	1.0	12.8	46.6	52.1	---	---	59
F	7986.0	S?	568415	6074801	3.9	7.8	2.1	15.0	53.7	67.5	---	---	11
G	8084.4	B?	569445	6076030	4.1	17.3	1.8	13.3	46.1	106.8	0.5	6	0
H	8154.5	S?	569951	6076644	6.8	16.0	4.2	22.6	75.6	115.9	0.9	2	0
LINE 10770			FLIGHT 4										
A	7462.4	S?	566420	6072240	7.7	9.7	4.3	16.1	57.7	66.2	1.6	0	0
B	7352.0	H	567907	6074071	8.1	9.2	5.0	17.9	68.9	59.0	1.8	25	0
C	7309.8	S	568443	6074632	9.1	7.5	3.7	15.4	58.8	69.4	2.8	21	11
D	7293.3	S	568657	6074913	7.9	8.9	5.9	11.1	41.4	35.8	1.8	26	0
E	7168.0	S?	569513	6075944	3.8	6.2	3.1	6.8	29.7	31.6	---	---	0
LINE 10780			FLIGHT 4										
A	6706.8	S	566340	6072003	4.4	5.9	2.4	15.2	58.3	59.4	1.2	27	0
B	6826.0	H	568109	6074134	3.3	0.9	6.8	20.7	68.7	12.2	---	---	0
C	6851.1	E	568476	6074543	11.3	12.3	2.5	23.2	83.8	97.9	---	---	0
D	6862.3	B?	568610	6074727	6.5	10.7	4.7	24.0	79.0	105.9	1.2	4	0
E	6990.6	H	569631	6075919	7.5	12.5	6.2	25.0	98.9	89.4	1.2	21	0
LINE 10790			FLIGHT 4										
A	6562.3	S	566342	6071857	6.0	9.4	3.1	15.7	54.6	64.0	1.2	20	15
B	6534.1	S	566734	6072325	7.4	10.0	4.3	15.0	59.5	49.7	1.5	17	0
C	6447.3	S	568167	6074064	6.3	6.3	9.7	28.2	93.5	49.6	2.0	28	0
D	6416.5	S	568627	6074547	4.6	8.3	4.7	22.4	74.3	83.5	0.9	25	11
E	6368.8	S	569249	6075312	2.3	8.1	0.4	8.9	27.1	68.9	0.4	0	0
F	6238.0	S	570055	6076268	1.4	1.6	3.7	1.3	3.0	1.6	---	---	0
LINE 10800			FLIGHT 4										
A	5722.6	S	566897	6072372	7.3	15.7	7.1	30.6	118.2	100.3	1.0	10	0
B	5860.5	S	568794	6074645	10.3	10.0	11.7	28.2	94.8	56.4	2.4	15	0
C	5972.8	B?	569692	6075674	13.6	18.9	4.0	22.4	83.0	111.6	1.8	3	0

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LINE 10810			FLIGHT 4										
A	5564.8	S	566642	6071903	9.3	11.0	4.5	18.1	68.2	69.7	1.9	0	0
B	5540.5	H	566952	6072263	14.8	19.0	5.4	27.3	101.1	93.6	2.0	10	0
C	5421.3	H	568826	6074515	6.8	2.9	12.3	16.6	40.5	10.3	---	---	0
D	5277.5	S?	569861	6075707	1.5	6.3	5.9	12.1	22.4	56.3	---	---	143
LINE 10820			FLIGHT 4										
A	4854.2	B?	566524	6071631	6.2	6.7	2.9	13.5	46.4	38.8	---	---	0
B	4870.2	S	566746	6071862	10.3	15.0	4.1	19.2	70.6	77.1	1.5	11	0
C	4988.0	H	568387	6073826	7.5	6.8	8.9	21.6	72.7	41.7	---	---	23
D	4997.0	S	568499	6073979	8.1	9.7	3.7	9.3	38.2	42.4	1.8	28	0
E	5027.9	H	568928	6074467	6.9	9.5	15.0	32.3	92.2	60.1	1.4	23	0
F	5146.0	S	569853	6075587	5.6	9.4	7.9	8.6	23.5	37.8	1.1	25	0
G	5163.8	H	569983	6075726	11.4	9.8	4.7	17.7	57.8	102.4	2.8	14	0
LINE 10830			FLIGHT 4										
A	3943.7	S?	566801	6071799	24.0	44.3	7.0	65.5	227.5	331.3	1.6	0	0
B	4036.6	S?	568104	6073312	11.1	9.2	1.0	9.7	44.6	56.5	2.9	17	0
C	4082.7	H	568989	6074367	3.5	3.4	13.0	19.9	66.6	9.7	1.6	14	0
D	4109.5	B?	569322	6074800	4.7	9.2	1.0	7.2	26.5	47.1	0.9	23	0
E	4161.2	B?	569640	6075156	3.3	3.9	5.5	1.8	8.9	9.1	---	---	0
LINE 10840			FLIGHT 4										
A	3875.9	E	566749	6071561	10.2	14.9	6.4	20.3	65.4	73.6	1.5	17	0
B	3853.3	S	567116	6071989	9.9	14.3	3.2	21.2	85.2	94.9	1.5	15	0
C	3764.2	B?	568541	6073692	7.8	5.2	6.8	12.9	38.1	6.1	---	---	0
D	3736.1	H	568961	6074225	7.5	6.1	6.6	17.1	64.7	66.0	---	---	0
E	3671.3	S	569774	6075150	1.8	1.6	4.2	12.3	39.1	63.6	---	---	0
LINE 10850			FLIGHT 4										
A	3140.8	B?	567022	6071727	12.6	20.2	3.5	30.1	113.6	128.3	1.5	11	0
B	3155.1	S?	567186	6071954	10.6	17.0	4.7	30.8	108.4	122.4	1.4	12	0
C	3171.0	H	567403	6072200	5.3	6.0	4.4	12.0	44.0	40.4	1.6	27	0
D	3224.8	S	568185	6073140	8.7	14.2	0.3	15.6	75.7	81.4	1.3	14	0
E	3240.4	S?	568471	6073434	7.9	9.4	7.5	22.5	80.6	69.2	1.7	14	0
F	3250.0	B?	568633	6073646	6.7	6.5	4.1	2.9	2.9	13.2	---	---	0
G	3279.8	H	569140	6074247	7.3	5.9	7.5	15.5	51.2	27.0	2.6	30	0

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LINE 10860			FLIGHT 4										
A	3083.6	B?	567127	6071701	7.1	10.1	6.3	21.0	72.8	62.4	1.4	19	0
B	3019.0	S?	568162	6072951	2.7	4.4	1.7	9.8	49.7	36.4	---	---	0
C	2997.4	S?	568464	6073321	10.0	7.8	4.8	26.3	102.3	102.3	3.1	17	0
D	2980.0	B?	568725	6073647	5.2	3.2	1.5	3.9	12.0	20.5	---	---	60
E	2936.3	B?	569342	6074345	8.0	8.1	6.1	13.4	53.0	31.8	---	---	0
LINE 10870			FLIGHT 4										
A	2571.0	H	567307	6071790	6.5	6.2	6.8	15.4	47.6	43.7	2.1	18	0
B	2691.8	S?	568693	6073406	4.3	3.7	11.9	31.7	96.6	74.4	2.0	32	0
C	2702.0	B?	568831	6073596	11.4	12.1	6.0	22.0	74.7	92.3	2.2	18	90
D	2745.0	S?	569539	6074380	1.1	1.8	4.0	5.4	15.9	25.1	---	---	0
LINE 10880			FLIGHT 4										
A	2490.1	H	567482	6071815	8.0	14.9	3.2	21.4	79.5	106.8	1.1	15	0
B	2397.4	S?	568675	6073237	4.7	7.5	13.6	31.1	100.5	77.4	1.1	21	0
C	2382.1	B?	568935	6073552	10.5	4.3	8.8	22.2	71.7	45.1	7.1	30	100
D	2312.0	S?	569931	6074725	1.3	4.0	2.0	8.1	25.1	34.1	---	---	24
LINE 10890			FLIGHT 4										
A	1835.5	S?	567583	6071815	5.5	9.7	1.9	8.5	32.2	77.8	1.0	20	0
B	1728.2	S?	569013	6073493	6.9	3.8	6.5	6.4	28.1	24.9	---	---	94
C	1719.4	B?	569176	6073686	8.6	9.6	12.9	18.9	60.9	30.0	1.9	16	0
D	1708.0	B?	569376	6073916	8.0	9.9	3.1	2.9	10.3	23.8	---	---	0
E	1697.7	D	569557	6074132	10.7	7.9	1.2	6.5	22.0	25.1	3.3	23	0
LINE 10900			FLIGHT 4										
A	1536.1	B?	569155	6073489	9.6	4.9	11.6	20.5	53.9	20.7	5.2	34	112
B	1564.0	B?	569654	6074119	6.9	7.7	3.1	16.4	60.8	42.7	---	---	0
LINE 10910			FLIGHT 4										
A	1298.8	S?	568957	6073085	9.9	9.3	5.0	21.7	76.5	70.0	2.4	10	0
B	1282.7	H	569197	6073393	4.1	0.8	7.9	15.9	40.9	9.1	---	---	96
C	1244.2	B?	569734	6074092	5.3	2.8	0.5	7.2	28.4	19.6	---	---	0
LINE 10920			FLIGHT 3										
A	8330.0	D	567684	6071459	7.7	8.0	2.8	11.2	35.9	23.9	2.0	9	0
B	8340.0	B?	567792	6071543	7.3	5.6	0.9	8.2	29.3	16.2	---	---	0

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LINE 10920			FLIGHT 3										
C	8442.0	H	569344	6073384	6.5	3.7	9.0	19.4	53.0	25.8	4.0	25	68
D	8500.5	B?	570198	6074410	3.0	5.4	1.1	8.5	28.2	33.1	---	---	14
LINE 10930			FLIGHT 3										
A	8188.8	H	569396	6073326	6.2	3.7	8.0	13.9	50.3	30.1	---	---	0
B	8151.1	E	570016	6074033	4.8	4.6	1.4	11.4	45.1	25.2	---	---	0
C	8125.7	D	570259	6074366	2.8	2.3	2.2	3.9	17.9	16.4	---	---	0
LINE 10940			FLIGHT 3										
A	7891.0	H	568381	6071936	5.1	6.0	5.3	18.4	74.9	55.6	1.5	22	0
B	7966.0	H	569645	6073442	2.9	4.5	10.3	26.5	91.5	49.9	---	---	0
C	8022.0	D	570317	6074263	5.0	3.8	3.2	6.1	23.1	30.4	2.5	39	19
LINE 10950			FLIGHT 3										
A	7774.8	B?	568870	6072420	15.6	20.6	5.6	35.8	140.5	156.5	2.0	0	0
B	7715.1	H	569766	6073420	11.0	9.8	12.6	29.5	96.1	96.9	2.7	0	13
C	7653.0	D	570307	6074090	8.5	9.1	1.2	15.9	55.6	47.5	2.0	16	0
LINE 10960			FLIGHT 3										
A	7480.3	H	569937	6073489	10.5	8.2	15.1	42.2	137.0	68.4	3.1	9	0
B	7520.0	S?	570312	6073915	5.5	9.6	2.0	16.3	48.1	93.6	---	---	0
C	7532.6	B?	570382	6073982	6.6	11.7	0.9	29.3	104.2	174.1	1.1	11	33
LINE 10970			FLIGHT 3										
A	7147.8	H	569239	6072497	9.3	9.4	8.6	29.3	95.9	77.4	2.2	20	0
B	7048.6	S?	570447	6073934	12.3	25.5	5.4	51.4	196.0	236.0	1.2	0	35
C	7045.0	B?	570495	6073980	9.5	17.9	7.6	51.4	196.0	236.0	1.2	1	0
LINE 10980			FLIGHT 3										
A	6939.4	S?	570583	6073935	12.8	31.9	8.2	68.6	229.7	319.3	1.0	0	0
LINE 10990			FLIGHT 3										
A	6648.9	S?	570132	6073246	8.5	8.8	8.0	15.1	54.7	43.9	2.1	10	0
B	6614.5	B?	570526	6073718	13.6	22.5	9.2	60.0	217.8	271.7	1.5	4	22
C	6598.8	S?	570727	6073983	13.9	19.4	8.9	46.1	170.2	160.2	1.8	0	15
LINE 11000			FLIGHT 3										
A	6478.2	E	570607	6073633	15.1	36.7	7.4	88.0	306.4	428.1	1.1	0	0

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LINE 11000			FLIGHT 3										
B	6483.1	B?	570662	6073715	22.2	44.8	7.7	88.0	306.4	428.1	1.5	0	19
C	6493.6	B?	570781	6073864	13.5	44.0	18.8	73.8	246.5	371.2	0.8	0	22
LINE 11010			FLIGHT 3										
A	6199.4	E	570552	6073437	14.8	22.7	6.9	39.4	137.0	178.3	1.6	0	0
B	6184.7	S?	570758	6073670	16.4	32.4	12.2	60.6	212.2	251.6	1.3	1	0
LINE 11020			FLIGHT 3										
A	6079.7	S?	570782	6073558	17.0	44.3	12.0	81.8	246.7	421.8	1.1	0	0
B	6088.8	B?	570925	6073727	13.1	27.2	15.6	87.6	313.2	387.3	1.2	9	0
C	6105.5	E	571109	6073972	4.5	20.4	2.4	27.0	83.6	172.1	0.4	8	32
LINE 11030			FLIGHT 3										
A	5500.3	B?	571008	6073712	7.8	15.9	4.2	57.5	207.9	293.9	1.0	11	36
LINE 11040			FLIGHT 3										
A	5312.2	H	569756	6072012	8.5	6.0	3.3	10.8	39.9	25.3	---	---	0
B	5394.3	S?	571015	6073516	7.7	18.9	10.0	41.7	152.1	207.1	0.9	0	0
C	5409.6	S	571189	6073741	7.1	14.2	3.5	37.4	124.0	243.5	1.0	9	15
LINE 11050			FLIGHT 3										
A	5161.7	H	569763	6071915	3.1	2.4	4.6	11.5	44.6	39.4	---	---	0
B	5079.7	B?	571088	6073485	4.9	6.3	5.6	18.1	61.5	56.1	---	---	0
LINE 11060			FLIGHT 3										
A	4855.9	B?	569594	6071527	3.7	5.5	2.4	11.1	36.4	57.8	1.1	39	0
B	4953.1	B?	570906	6073062	2.1	4.4	1.2	6.5	36.1	50.1	---	---	0
LINE 11070			FLIGHT 3										
A	4704.4	H	570720	6072724	4.3	6.0	4.4	13.6	45.6	37.5	1.2	21	0
LINE 11090			FLIGHT 3										
A	4046.2	H	571321	6073133	4.4	1.8	5.7	15.7	53.2	26.1	---	---	0
LINE 11100			FLIGHT 3										
A	3823.8	S	570189	6071618	4.3	8.2	2.0	12.9	44.5	57.8	0.9	18	0
B	3768.7	E	571121	6072701	8.3	8.1	1.8	14.6	54.7	53.0	---	---	0
C	3751.7	H	571350	6073022	4.8	3.6	4.2	14.1	39.6	24.0	---	---	0

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EM Anomaly List

Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 11110			FLIGHT 3										
A	3484.7	H	571319	6072803	5.0	2.6	2.2	10.2	40.9	41.6	---	---	0
LINE 11130			FLIGHT 3										
A	2733.7	S?	570914	6071982	9.2	10.7	2.2	12.5	50.2	65.9	1.9	4	0
B	2790.0	E	571801	6073077	8.6	9.2	2.9	12.6	45.2	51.0	---	---	81
LINE 11140			FLIGHT 3										
A	2564.0	H	571669	6072754	1.0	1.5	4.0	4.3	6.5	3.2	---	---	0
LINE 11150			FLIGHT 3										
A	2319.5	S?	570798	6071585	5.8	9.7	4.6	13.5	50.4	47.0	1.1	11	0
B	2371.1	H	571759	6072724	1.6	2.0	4.8	7.7	25.3	15.5	---	---	0
LINE 11160			FLIGHT 3										
A	2217.1	H	571059	6071701	3.2	3.2	4.1	6.8	23.5	15.1	1.6	30	0
LINE 11170			FLIGHT 3										
A	1576.3	H	571216	6071716	4.9	1.9	3.8	12.5	42.8	26.9	---	---	0
LINE 11180			FLIGHT 3										
A	1443.1	H	571232	6071621	3.5	4.5	3.6	10.6	32.8	33.7	1.2	19	0
LINE 11210			FLIGHT 2										
A	2579.0	H	572669	6072869	1.4	0.7	5.5	7.9	21.0	1.5	---	---	17
LINE 11220			FLIGHT 2										
A	2371.7	H	571610	6071440	1.9	1.2	3.3	2.3	5.3	0.3	---	---	0
B	2294.5	S?	573089	6073193	6.3	10.2	1.8	17.4	66.5	94.6	1.2	8	0
LINE 11230			FLIGHT 2										
A	2132.0	H	571715	6071424	1.4	0.2	4.3	4.8	19.1	0.2	---	---	0
LINE 11250			FLIGHT 2										
A	1644.7	B?	573121	6072762	4.4	2.1	3.7	8.6	29.7	20.1	---	---	0
LINE 11260			FLIGHT 2										
A	1438.3	H	572119	6071426	8.9	7.9	12.0	25.3	87.2	52.8	2.5	14	47

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LINE 11270			FLIGHT 2										
A	1145.3	H	572231	6071400	3.9	4.6	6.4	16.4	56.6	33.7	1.4	8	32
LINE 11280			FLIGHT 2										
A	1013.1	B?	572225	6071208	7.0	4.4	8.4	13.9	42.0	16.9	---	---	24
LINE 19010			FLIGHT 6										
A	2106.1	B?	567152	6079093	5.5	6.1	2.2	15.4	55.2	49.2	---	---	0
B	2099.6	B?	567227	6079037	9.5	11.4	5.0	20.4	75.4	69.1	1.8	5	0
C	2061.5	S	567816	6078638	7.2	10.3	4.9	15.4	65.9	75.7	1.4	9	0
D	1900.1	H	569841	6076864	4.9	2.5	6.1	19.7	65.0	21.5	---	---	177
LINE 19020			FLIGHT 6										
A	1317.0	S	569629	6075764	3.7	6.3	2.0	13.8	56.5	45.6	---	---	0
B	1354.3	S?	570225	6075239	5.4	3.6	10.1	16.3	49.5	27.0	3.0	5	0
C	1362.0	B?	570335	6075157	5.4	3.4	2.0	2.3	5.3	3.2	3.3	0	0
LINE 19030			FLIGHT 6										
A	832.5	E	566708	6076922	5.5	3.2	4.2	15.9	54.1	42.5	---	---	0
B	680.4	S	569186	6074777	5.2	8.9	2.6	12.6	44.2	52.1	1.0	19	0
C	631.5	S?	569856	6074214	6.4	9.8	3.3	17.4	64.2	66.3	1.3	21	0
D	583.5	S	570114	6074025	9.7	14.5	7.0	23.0	83.9	91.9	1.5	23	0
E	578.2	S	570154	6073994	8.2	9.9	7.2	22.8	80.4	44.2	---	---	0
F	551.0	S?	570569	6073656	13.4	24.0	6.5	50.7	171.4	247.9	1.4	0	0
G	424.0	H	572373	6072097	3.8	4.0	3.7	16.6	62.5	59.5	---	---	0
LINE 19040			FLIGHT 9										
A	2245.0	B?	562861	6078817	14.7	18.7	3.8	24.5	75.9	88.8	2.0	3	0
B	2235.6	B?	562961	6078731	15.1	20.1	2.9	24.3	75.8	102.3	1.9	17	0
C	2219.3	S	563130	6078598	16.0	27.2	4.0	48.6	180.6	183.2	1.5	3	0
D	2089.8	S?	564831	6077167	11.7	28.3	1.4	18.0	61.5	128.3	1.0	0	0
LINE 19042			FLIGHT 9										
A	2372.7	H	562949	6078776	18.7	21.8	5.7	22.9	67.2	56.2	2.4	4	0
LINE 19050			FLIGHT 10										
A	5639.7	H	562095	6078130	22.6	21.4	11.0	45.8	175.7	179.2	3.2	11	0
B	5632.3	D	562173	6078054	15.2	13.3	11.0	37.4	132.1	93.1	3.1	29	0

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Label	Fid	Interp	XUTM m	YUTM m	CX 5500 HZ Real ppm	CX 5500 HZ Quad ppm	CP 900 HZ Real ppm	CP 900 HZ Quad ppm	CP 7200 HZ Real ppm	CP 7200 HZ Quad ppm	Vertical Dike COND siemens	Vertical Dike DEPTH* m	Mag. Corr NT
LINE 19050			FLIGHT 10										
C	5545.1	H	563670	6076834	7.0	11.2	5.2	18.8	123.1	92.4	1.2	12	0
D	5540.5	S	563737	6076777	6.0	21.0	10.2	33.8	126.7	168.7	0.6	9	0
E	5244.1	S?	568108	6073101	6.0	5.2	3.8	10.5	41.8	35.1	---	---	0
F	5195.0	S	568633	6072670	15.2	20.8	5.6	33.1	137.8	143.6	1.9	10	0
G	5182.4	S?	568887	6072470	11.8	9.6	4.1	22.8	88.4	64.1	3.1	8	0
H	5147.6	B?	569299	6072115	6.2	10.0	5.7	24.1	84.8	76.9	1.2	18	0
I	5134.3	D	569444	6072013	15.4	20.9	3.4	18.2	63.5	68.8	1.9	15	0
LINE 19060			FLIGHT 11										
A	1542.7	S	561819	6077107	5.2	6.2	2.7	10.7	46.0	50.1	1.5	31	0
B	1510.3	B?	562193	6076794	3.5	12.5	2.5	8.3	21.2	70.1	0.5	4	56
LINE 19070			FLIGHT 6										
A	3305.0	H	564181	6073819	9.7	7.4	13.0	31.2	89.5	55.1	3.1	23	0
B	3239.0	S?	565272	6072878	8.3	17.6	4.2	74.0	269.5	390.8	1.0	11	0
C	3101.3	H	566816	6071583	12.3	22.3	10.4	47.8	159.0	171.4	1.3	0	0
LINE 19080			FLIGHT 6										
A	2514.5	S	560922	6075259	0.6	1.8	0.3	4.6	13.3	33.4	---	---	100
B	2601.5	H	562260	6074099	3.3	6.9	2.4	11.9	36.6	57.3	0.7	19	0
C	2664.1	H	563486	6073125	3.2	3.3	5.9	13.8	48.7	32.4	1.5	33	0

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APPENDIX F

GLOSSARY

APPENDIX F

GLOSSARY OF AIRBORNE GEOPHYSICAL TERMS

Note: The definitions given in this glossary refer to the common terminology as used in airborne geophysics.

altitude attenuation: the absorption of gamma rays by the atmosphere between the earth and the detector. The number of gamma rays detected by a system decreases as the altitude increases.

apparent- : the ***physical parameters*** of the earth measured by a geophysical system are normally expressed as apparent, as in "apparent ***resistivity*"**. This means that the measurement is limited by assumptions made about the geology in calculating the response measured by the geophysical system. Apparent resistivity calculated with ***HEM***, for example, generally assumes that the earth is a ***homogeneous half-space*** – not layered.

amplitude: The strength of the total electromagnetic field. In ***frequency domain*** it is most often the sum of the squares of ***in-phase*** and ***quadrature*** components. In multi-component electromagnetic surveys it is generally the sum of the squares of all three directional components.

analytic signal: The total amplitude of all the directions of magnetic ***gradient***. Calculated as the sum of the squares.

anisotropy: Having different ***physical parameters*** in different directions. This can be caused by layering or fabric in the geology. Note that a unit can be anisotropic, but still **homogeneous**.

anomaly: A localized change in the geophysical data characteristic of a discrete source, such as a conductive or magnetic body. Something locally different from the **background**.

B-field: In time-domain **electromagnetic** surveys, the magnetic field component of the (electromagnetic) **field**. This can be measured directly, although more commonly it is calculated by integrating the time rate of change of the magnetic field **dB/dt**, as measured with a receiver coil.

background: The "normal" response in the geophysical data – that response observed over most of the survey area. **Anomalies** are usually measured relative to the background. In airborne gamma-ray spectrometric surveys the term defines the **cosmic**, radon, and aircraft responses in the absence of a signal from the ground.

base-level: The measured values in a geophysical system in the absence of any outside signal. All geophysical data are measured relative to the system base level.

base frequency: The frequency of the pulse repetition for a ***time-domain electromagnetic*** system. Measured between subsequent positive pulses.

bird: A common name for the pod towed beneath or behind an aircraft, carrying the geophysical sensor array.

calibration coil: A wire coil of known size and dipole moment, which is used to generate a field of known ***amplitude*** and ***phase*** in the receiver, for system calibration. Calibration coils can be external, or internal to the system. Internal coils may be called Q-coils.

coaxial coils: **[CX]** Coaxial coils are in the vertical plane, with their axes horizontal and collinear in the flight direction. These are most sensitive to vertical conductive objects in the ground, such as thin, steeply dipping conductors perpendicular to the flight direction. Coaxial coils generally give the sharpest anomalies over localized conductors. (See also ***coplanar coils***)

coil: A multi-turn wire loop used to transmit or detect electromagnetic fields. Time varying ***electromagnetic*** fields through a coil induce a voltage proportional to the strength of the field and the rate of change over time.

compensation: Correction of airborne geophysical data for the changing effect of the aircraft. This process is generally used to correct data in ***fixed-wing time-domain electromagnetic*** surveys (where the transmitter is on the aircraft and the receiver is moving), and magnetic surveys (where the sensor is on the aircraft, turning in the earth's magnetic field.

component: In ***frequency domain electromagnetic*** surveys this is one of the two **phase** measurements – ***in-phase or quadrature***. In "multi-component" electromagnetic surveys it is also used to define the measurement in one geometric direction (vertical, horizontal in-line and horizontal transverse – the Z, X and Y components).

Compton scattering: gamma ray photons will bounce off the nuclei of atoms they pass through (earth and atmosphere), reducing their energy and then being detected by ***radiometric*** sensors at lower energy levels. See also ***stripping***.

conductance: See ***conductivity thickness***

conductivity: [σ] The facility with which the earth or a geological formation conducts electricity. Conductivity is usually measured in milli-Siemens per metre (mS/m). It is the reciprocal of ***resistivity***.

conductivity-depth imaging: see ***conductivity-depth transform***.

conductivity-depth transform: A process for converting electromagnetic measurements to an approximation of the conductivity distribution vertically in the earth, assuming a ***layered earth***. (Macnae and Lamontagne, 1987; Wolfgram and Karlik, 1995)

conductivity thickness: [σ**t**] The product of the ***conductivity***, and thickness of a large, tabular body. (It is also called the "conductivity-thickness product") In electromagnetic geophysics, the response of a thin plate-like conductor is proportional to the conductivity multiplied by thickness. For example a 10 metre thickness of 20 Siemens/m mineralization will be equivalent to 5 metres of 40 S/m; both have 200 S conductivity thickness. Sometimes referred to as conductance.

conductor: Used to describe anything in the ground more conductive than the surrounding geology. Conductors are most often clays or graphite, or hopefully some type of mineralization, but may also be man-made objects, such as fences or pipelines.

coplanar coils: **[CP]** The coplanar coils lie in the horizontal plane with their axes vertical, and parallel. These coils are most sensitive to massive conductive bodies, horizontal layers, and the ***halfspace***.

cosmic ray: High energy sub-atomic particles from outer space that collide with the earth's atmosphere to produce a shower of gamma rays (and other particles) at high energies.

counts (per second): The number of ***gamma-rays*** detected by a gamma-ray ***spectrometer*.** The rate depends on the geology, but also on the size and sensitivity of the detector.

culture: A term commonly used to denote any man-made object that creates a geophysical anomaly. Includes, but not limited to, power lines, pipelines, fences, and buildings.

current gathering: The tendency of electrical currents in the ground to channel into a conductive formation. This is particularly noticeable at higher frequencies or early time channels when the formation is long and parallel to the direction of current flow. This tends to enhance anomalies relative to inductive currents (see also ***induction***). Also known as current channelling.

current channelling: See current gathering.

daughter products: The radioactive natural sources of gamma-rays decay from the original element (commonly potassium, uranium, and thorium) to one or more lower-energy elements. Some of these lower energy elements are also radioactive and decay further. ***Gamma-ray spectrometry*** surveys may measure the gamma rays given off by the original element or by the decay of the daughter products.

dB/dt: As the ***secondary electromagnetic field*** changes with time, the magnetic field [**B**] component induces a voltage in the receiving ***coil***, which is proportional to the rate of change of the magnetic field over time.

decay: In ***time-domain electromagnetic*** theory, the weakening over time of the ***eddy currents*** in the ground, and hence the ***secondary field*** after the ***primary field*** electromagnetic pulse is turned off. In ***gamma-ray spectrometry***, the radioactive breakdown of an element, generally potassium, uranium, thorium, or one of their ***daughter*** products.

decay series: In ***gamma-ray spectrometry***, a series of progressively lower energy ***daughter products*** produced by the radioactive breakdown of uranium or thorium.

decay constant: see time constant.

depth of exploration: The maximum depth at which the geophysical system can detect the target. The depth of exploration depends very strongly on the type and size of the target, the contrast of the target with the surrounding geology, the homogeneity of the surrounding geology, and the type of geophysical system. One measure of the maximum depth of exploration for an electromagnetic system is the depth at which it can detect the strongest conductive target – generally a highly conductive horizontal layer.

differential resistivity: A process of transforming ***apparent resistivity*** to an approximation of layer resistivity at each depth. The method uses multi-frequency HEM data and approximates the effect of shallow layer ***conductance*** determined from higher frequencies to estimate the deeper conductivities (Huang and Fraser, 1996)

dipole moment: [NIA] For a transmitter, the product of the area of a ***coil***, the number of turns of wire, and the current flowing in the coil. At a distance significantly larger than the size of the coil, the magnetic field from a coil will be the same if the dipole moment product is the same. For a receiver coil, this is the product of the area and the number of turns. The sensitivity to a magnetic field (assuming the source is far away) will be the same if the dipole moment is the same.

diurnal: The daily variation in a natural field, normally used to describe the natural fluctuations (over hours and days) of the earth's magnetic field.

dielectric permittivity: **[ε]** The capacity of a material to store electrical charge, this is most often measured as the relative permittivity [ε_r], or ratio of the material dielectric to that of free space. The effect of high permittivity may be seen in HEM data at high frequencies over highly resistive geology as a reduced or negative ***in-phase***, and higher ***quadrature*** data.

drift: Long-time variations in the base-level or calibration of an instrument.

eddy currents: The electrical currents induced in the ground, or other conductors, by a time-varying ***electromagnetic field*** (usually the ***primary field***). Eddy currents are also induced in the aircraft's metal frame and skin; a source of ***noise*** in EM surveys.

electromagnetic: **[EM]** Comprised of a time-varying electrical and magnetic field. Radio waves are common electromagnetic fields. In geophysics, an electromagnetic system is one which transmits a time-varying ***primary field*** to induce ***eddy currents*** in the ground, and then measures the ***secondary field*** emitted by those eddy currents.

energy window: A broad spectrum of ***gamma-ray*** energies measured by a spectrometric survey. The energy of each gamma-ray is measured and divided up into numerous discrete energy levels, called windows.

equivalent (thorium or uranium): The amount of radioelement calculated to be present, based on the gamma-rays measured from a **daughter** element. This assumes that the ***decay series*** is in equilibrium – progressing normally.

fiducial, or fid: Timing mark on a survey record. Originally these were timing marks on a profile or film; now the term is generally used to describe 1-second interval timing records in digital data, and on maps or profiles.

fixed-wing: Aircraft with wings, as opposed to "rotary wing" helicopters.

footprint: This is a measure of the area of sensitivity under the aircraft of an airborne geophysical system. The footprint of an ***electromagnetic*** system is dependent on the altitude of the system, the orientation of the transmitter and receiver and the separation between the receiver and transmitter, and the conductivity of the ground. The footprint of a ***gamma-ray spectrometer*** depends mostly on the altitude. For all geophysical systems, the footprint also depends on the strength of the contrasting ***anomaly***.

frequency domain: An ***electromagnetic*** system which transmits a ***primary field*** that oscillates smoothly over time (sinusoidal), inducing a similarly varying electrical current in the ground. These systems generally measure the changes in the ***amplitude*** and ***phase*** of the ***secondary field*** from the ground at different frequencies by measuring the **in-phase** and **quadrature** phase components. See also ***time-domain***.

full-stream data: Data collected and recorded continuously at the highest possible sampling rate. Normal data are stacked (see ***stacking***) over some time interval before recording.

gamma-ray: A very high-energy photon, emitted from the nucleus of an atom as it undergoes a change in energy levels.

gamma-ray spectrometry: Measurement of the number and energy of natural (and sometimes man-made) gamma-rays across a range of photon energies.

gradient: In magnetic surveys, the gradient is the change of the magnetic field over a distance, either vertically or horizontally in either of two directions. Gradient data is often measured, or calculated from the total magnetic field data because it changes more quickly over distance than the ***total magnetic field***, and so may provide a more precise measure of the location of a source. See also ***analytic signal***.

ground effect: The response from the earth. A common calibration procedure in many geophysical surveys is to fly to altitude high enough to be beyond any measurable response from the ground, and there establish ***base levels*** or ***backgrounds***.

half-space: A mathematical model used to describe the earth – as infinite in width, length, and depth below the surface. The most common halfspace models are ***homogeneous*** and ***layered earth***.

heading error: A slight change in the magnetic field measured when flying in opposite directions.

HEM: Helicopter ElectroMagnetic, This designation is most commonly used to helicopter-borne, ***frequency-domain*** electromagnetic systems. At present, the transmitter and receivers are normally mounted in a ***bird*** carried on a sling line beneath the helicopter.

herringbone pattern: a pattern created in geophysical data by an asymmetric system, where the **anomaly** may be extended to either side of the source, in the direction of flight. Appears like fish bones, or like the teeth of a comb, extending either side of centre, each tooth an alternate flight line.

homogeneous: This is a geological unit that has the same ***physical parameters*** throughout its volume. This unit will create the same response to an HEM system anywhere, and the HEM system will measure the same apparent ***resistivity*** anywhere. The response may change with system direction (see ***anisotropy***).

in-phase: the component of the measured ***secondary field*** that has the same phase as the transmitter and the ***primary field***. The in-phase component is stronger than the ***quadrature*** phase over relatively higher ***conductivity***.

induction: Any time-varying electromagnetic field will induce (cause) electrical currents to flow in any object with non-zero ***conductivity***. (see ***eddy currents***)

infinite: In geophysical terms, an "infinite' dimension is one much greater than the ***footprint*** of the system, so that the system does not detect changes at the edges of the object.

International Geomagnetic Reference Field: **[IGRF]** An approximation of the smooth magnetic field of the earth, in the absence of variations due to local geology. Once the IGRF is subtracted from the measured magnetic total field data, any remaining variations are assumed to be due to local geology. The IGRF also predicts the slow changes of the field up to five years in the future.

inversion, or **inverse modeling**: A process of converting geophysical data to an earth model, which compares theoretical models of the response of the earth to the data measured, and refines the model until the response closely fits the measured data (Huang and Palacky, 1991)

layered earth: A common geophysical model which assumes that the earth is horizontally layered – the ***physical parameters*** are constant to ***infinite*** distance horizontally, but change vertically.

magnetic permeability: **[μ]** This is defined as the ratio of magnetic induction to the inducing magnetic field. The relative magnetic permeability [μ_r] is often quoted, which is the ratio of the rock permeability to the permeability of free space. In geology and geophysics, the ***magnetic susceptibility*** is more commonly used to describe rocks.

magnetic susceptibility: **[k]** A measure of the degree to which a body is magnetized. In SI units this is related to relative ***magnetic permeability*** by $k=\mu_r-1$, and is a dimensionless unit. For most geological material, susceptibility is influenced primarily by the percentage of magnetite. It is most often quoted in units of 10^{-6}. In HEM data this is most often apparent as a negative ***in-phase*** component over high susceptibility, high ***resistivity*** geology such as diabase dikes.

noise: That part of a geophysical measurement that the user does not want. Typically this includes electronic interference from the system, the atmosphere (***sferics***), and man-made sources. This can be a subjective judgment, as it may include the response from geology other than the target of interest. Commonly the term is used to refer to high frequency (short period) interference. See also ***drift***.

Occam's inversion: an ***inversion*** process that matches the measured ***electromagnetic*** data to a theoretical model of many, thin layers with constant thickness and varying resistivity (Constable et al, 1987).

off-time: In a ***time-domain electromagnetic*** survey, the time after the end of the ***primary field pulse***, and before the start of the next pulse.

on-time: In a ***time-domain electromagnetic*** survey, the time during the ***primary field pulse***.

phase: The angular difference in time between a measured sinusoidal electromagnetic field and a reference – normally the primary field. The phase is calculated from $\tan^{-1}$(***in-phase / quadrature***).

physical parameters: These are the characteristics of a geological unit. For electromagnetic surveys, the important parameters for electromagnetic surveys are ***conductivity, magnetic permeability*** (or ***susceptibility***) and ***dielectric permittivity***;

for magnetic surveys the parameter is magnetic susceptibility, and for gamma ray spectrometric surveys it is the concentration of the major radioactive elements: potassium, uranium, and thorium.

permittivity: see ***dielectric permittivity***.

permeability: see ***magnetic permeability***.

primary field: the EM field emitted by a transmitter. This field induces ***eddy currents*** in (energizes) the conductors in the ground, which then create their own ***secondary* fields**.

pulse: In time-domain EM surveys, the short period of intense ***primary*** field transmission. Most measurements (the ***off-time***) are measured after the pulse.

quadrature: that component of the measured ***secondary field*** that is phase-shifted 90° from the ***primary field***. The quadrature component tends to be stronger than the ***in-phase*** over relatively weaker ***conductivity***.

Q-coils: see ***calibration coil***.

radiometric: Commonly used to refer to ***gamma ray*** spectrometry.

radon: A radioactive daughter product of uranium and thorium, radon is a gas which can leak into the atmosphere, adding to the non-geological background of a gamma-ray spectrometric survey.

resistivity: **[ρ]** The strength with which the earth or a geological formation resists the flow of electricity, typically the flow induced by the ***primary field*** of the electromagnetic transmitter. Normally expressed in ohm-metres, it is the reciprocal of ***conductivity***.

resistivity-depth transforms: similar to ***conductivity depth transforms***, but the calculated ***conductivity*** has been converted to ***resistivity***.

resistivity section: an approximate vertical section of the resistivity of the layers in the earth. The resistivities can be derived from the ***apparent resistivity***, the ***differential resistivities***, ***resistivity-depth transforms***, or ***inversions***.

secondary field: The field created by conductors in the ground, as a result of electrical currents induced by the ***primary field*** from the ***electromagnetic*** transmitter. Airborne ***electromagnetic*** systems are designed to create, and measure a secondary field.

Sengpiel section: a ***resistivity section*** derived using the ***apparent resistivity*** and an approximation of the depth of maximum sensitivity for each frequency.

sferic: Lightning, or the ***electromagnetic*** signal from lightning, it is an abbreviation of "atmospheric discharge". These appear to magnetic and electromagnetic sensors as sharp "spikes" in the data. Under some conditions lightning storms can be detected from hundreds of kilometres away. (see ***noise***)

signal: That component of a measurement that the user wants to see – the response from the targets, from the earth, etc. (See also ***noise***)

skin depth: A measure of the depth of penetration of an electromagnetic field into a material. It is defined as the depth at which the primary field decreases to 1/e of the field at the surface. It is calculated by approximately 503 x √(resistivity/frequency). Note that depth of penetration is greater at higher ***resistivity*** and/or lower ***frequency***.

spectrometry: Measurement across a range of energies, where ***amplitude*** and energy are defined for each measurement. In gamma-ray spectrometry, the number of gamma rays are measured for each energy ***window***, to define the ***spectrum***.

spectrum: In ***gamma ray spectrometry***, the continuous range of energy over which gamma rays are measured. In ***time-domain electromagnetic*** surveys, the spectrum is the energy of the **pulse** distributed across an equivalent, continuous range of frequencies.

spheric: see ***sferic***.

stacking: Summing repeat measurements over time to enhance the repeating ***signal***, and minimize the random ***noise***.

stripping: Estimation and correction for the gamma ray photons of higher and lower energy that are observed in a particular ***energy window***. See also ***Compton scattering***.

susceptibility: See ***magnetic susceptibility***.

tau: [τ] Often used as a name for the ***time constant***.

TDEM: ***time domain electromagnetic***.

thin sheet: A standard model for electromagnetic geophysical theory. It is usually defined as thin, flat-lying, and ***infinite*** in both horizontal directions. (see also ***vertical plate***)

tie-line: A survey line flown across most of the ***traverse lines***, generally perpendicular to them, to assist in measuring ***drift*** and ***diurnal*** variation. In the short time required to fly a tie-line it is assumed that the drift and/or diurnal will be minimal, or at least changing at a constant rate.

time constant: The time required for an ***electromagnetic*** field to decay to a value of 1/e of the original value. In ***time-domain*** electromagnetic data, the time constant is proportional to the size and ***conductance*** of a tabular conductive body. Also called the decay constant.

Time channel: In ***time-domain electromagnetic*** surveys the decaying ***secondary field*** is measured over a period of time, and the divided up into a series of consecutive discrete measurements over that time.

time-domain: ***Electromagnetic*** system which transmits a pulsed, or stepped ***electromagnetic*** field. These systems induce an electrical current (***eddy current***) in the ground that persists after the ***primary field*** is turned off, and measure the change over time of the ***secondary field*** created as the currents ***decay***. See also ***frequency-domain***.

total energy envelope: The sum of the squares of the three ***components*** of the ***time-domain electromagnetic secondary field***. Equivalent to the ***amplitude*** of the secondary field.

transient: Time-varying. Usually used to describe a very short period pulse of ***electromagnetic*** field.

traverse line: A normal geophysical survey line. Normally parallel traverse lines are flown across the property in spacing of 50 m to 500 m, and generally perpendicular to the target geology.

vertical plate: A standard model for electromagnetic geophysical theory. It is usually defined as thin, and ***infinite*** in horizontal dimension and depth extent. (see also ***thin shee***t)

waveform: The shape of the ***electromagnetic pulse*** from a ***time-domain*** electromagnetic transmitter.

window: A discrete portion of a ***gamma-ray spectrum*** or ***time-domain electromagnetic decay***. The continuous energy spectrum or ***full-stream*** data are grouped into windows to reduce the number of samples, and reduce ***noise***.

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Common Symbols and Acronyms

k Magnetic susceptibility
ε Dielectric permittivity
μ, μ_r Magnetic permeability, apparent permeability
ρ, ρ_a Resistivity, apparent resistivity
σ,σ_a Conductivity, apparent conductivity
σ**t** Conductivity thickness
τ Tau, or time constant
Ω**.m** Ohm-metres, units of resistivity
AGS Airborne gamma ray spectrometry.
CDT Conductivity-depth transform, conductivity-depth imaging (Macnae and Lamontagne, 1987; Wolfgram and Karlik, 1995)
CPI, CPQ Coplanar in-phase, quadrature
CPS Counts per second
CTP Conductivity thickness product
CXI, CXQ Coaxial, in-phase, quadrature
fT femtoteslas, normal unit for measurement of B-Field
EM Electromagnetic
keV kilo electron volts – a measure of gamma-ray energy
MeV mega electron volts – a measure of gamma-ray energy 1MeV = 1000keV
NIA dipole moment: turns x current x Area
nT nano-Tesla, a measure of the strength of a magnetic field
ppm parts per million – a measure of secondary field or noise relative to the primary.
pT/s picoTeslas per second: Units of decay of secondary field, dB/dt
S Siemens – a unit of conductance
x: the horizontal component of an EM field parallel to the direction of flight.
y: the horizontal component of an EM field perpendicular to the direction of flight.
z: the vertical component of an EM field.

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